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ABSTRACT

This module, one in a series of performance-based teacher education learning packages, focuses on a specific skill that vocational educators need to integrate competency-based education (CBE) into the vocational education curriculum. The purpose of the module is to help the instructor understand the educational philosophy on which CBE is based and how this is applied in practice, assess his/her readiness for CBE, and develop a plan for gaining the knowledge and skills he/she needs. Introductory material provides terminal and enabling objectives, prerequisites, a list of resources, and general information. The main portion of the module includes three learning experiences based on the enabling objectives. Each learning experience presents activities with information sheets, case studies, model critiques, inventories, worksheets, and checklists. Optional activities are provided. Completion of these three learning experiences should lead to achievement of the terminal objective through the fourth and final learning experience that provides for a teacher performance assessment by a resource person. An assessment form is included. (YLB)

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Prepare Yourself for CBE

AMERICAN ASSOCIATION
FOR VOCATIONAL
INSTRUCTIONAL MATERIALS
The University of Georgia
120 Driftmier Engineering Center · Athens GA 30602

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

FOREWORD

This module is one of a series of over 125 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of occupational instructors (teachers, trainers). The competencies upon which these modules are based were identified and verified through research as being important to successful occupational teaching at all levels of instruction. The modules are suitable for the preparation of instructors in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the occupational instructor's performance of the specified competency. The materials are designed for use by teachers-in-training working individually or in groups under the direction and with the assistance of teacher educators or others acting as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice teachers, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by local education programs, postsecondary institutions, state departments of education, universities and colleges, and others responsible for the professional development of occupational instructors.

The PBTE curriculum packages in Category K—Implementing Competency-Based Education (CBE)—are designed to enable occupational instructors to install and manage training programs embodying the principles and concepts of CBE. The modules are based upon 84 teacher competencies identified as essential to installing and managing competency-based occupational instructional programs.

Many individuals and institutions have contributed to the research, development, testing, and revision of these significant training materials. Appreciation is extended to the following individuals who, as members of the DACUM analysis panel, assisted National Center staff in the identification of the teacher competency statements upon which this category of modules is based: Odell Chism, Robert Dubanoski, Neil Reske, Bell Nicholson, Robert Rannells, Richard Sedlacek, William Shoaf, Kris Sitler, Michael Strohaber, and Ann Vescio. Appreciation is also extended to the following individuals for their critical reviews of the modules during the development process: Glen E. Fardig, Robert E. Norton, and Roger Harris.

Field testing of the materials was carried out with the assistance of field-site coordinators, teacher educators, students, directors of staff development, and others at the following institutions: DuPage Area Vocational Education Authority Center, Illinois; Indiana University of Pennsylvania; Pennsylvania State University; Seminole Community College, Florida; Trident Technical College, South Carolina; University of Arkansas, Fayetteville; University of Central Florida; University of Pittsburgh, Pennsylvania; University of Southern Maine; and University of Vermont.

Recognition for major individual roles in the development of these materials is extended to the following National Center staff: Lucille-Campbell Thrane, Associate Director, Development Division, and James B. Hamilton, Program Director, for leadership and direction of the project; Michael E. Wonacott and C. Lynn Malowney, Program Associates, for module quality control; Cheryl M. Lowry, Research Specialist, and Billie Hooker, Graduate Research Associate, for developing illustration specifications; Barbara Shea for art work; Andonia Simandjuntak, Graduate Research Associate, for assistance in field-test data summarization; and Glen E. Fardig, Consultant, and Lois G. Harrington, Program Associate, for revision of the materials following field testing.

Special recognition is also extended to the staff at AAVIM for their invaluable contributions to the quality of the final printed products, particularly to Marilyn MacMillan for module layout, design, and final art work; and to George W. Smith, Jr. for supervision of the module production process.

Robert E. Taylor
Executive Director
The National Center for Research in Vocational Education

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

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- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

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The National Institute for Instructional Materials
120 Driftmier Engineering Center
Athens, Georgia 30602

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Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.

MODULE
K-1

Prepare Yourself for CBE

Module K-1 of Category K—Implementing Competency-Based Education (CBE)
PROFESSIONAL TEACHER EDUCATION MODULE SERIES

Michael E. Wonacott, Program Associate

The National Center for Research in Vocational Education
The Ohio State University

Key Program Staff:
James B. Hamilton, Program Director
Lois G. Harrington, Program Associate
Michael E. Wonacott, Program Associate
Glen E. Fardig, Consultant

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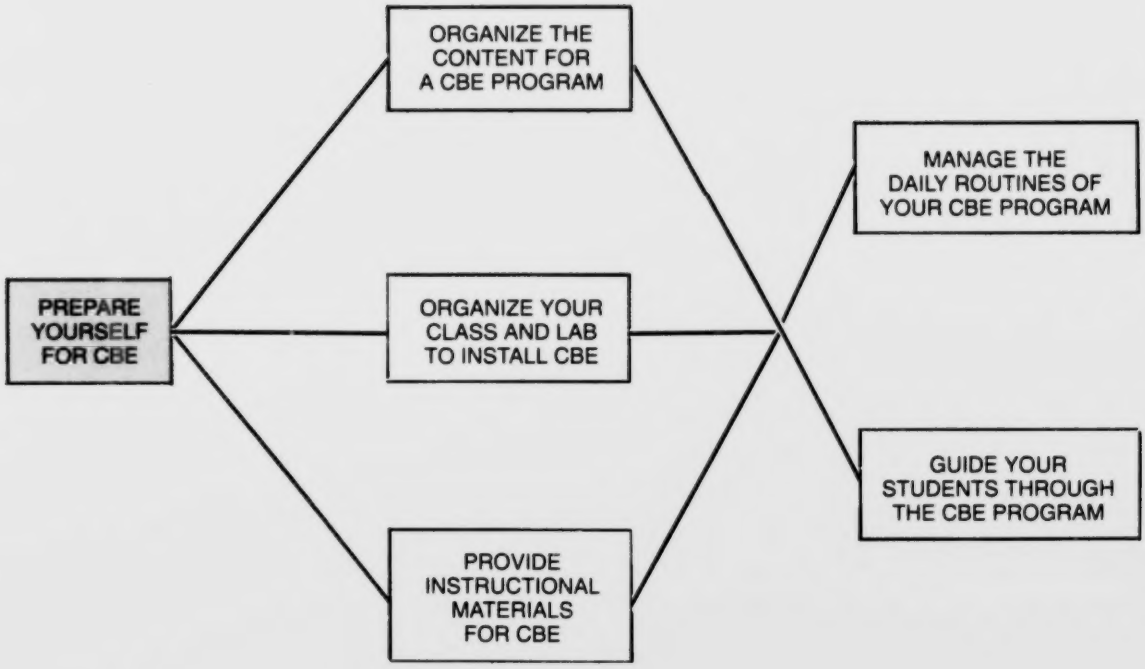


CBE IMPLEMENTATION PROCESS

INTRODUCTION

Things don't stand still in education. Just when you think you've got things running smoothly, along comes a new idea that makes you wonder whether you need to take another look at your program to see if it can be improved. Competency-based education (CBE) is one of those ideas. It is being talked about, written about, and established all over the country. It appears to be, in the words of a familiar phrase, an idea whose time has come. And you are likely to be affected.

The individual elements of CBE are not strictly new to vocational educators:

- Vocational instructors have always attempted to make the content of their programs fit the needs of business and industry, but CBE puts real rigor into the process.
- It has been one of the unique strengths of vocational education that its teachers have taken a personal interest in their students. An individualized, competency-based approach allows this to happen to a degree never before possible.
- Vocational teachers have long been concerned with evaluating students on the basis of occupational skill. CBE gives them better tools with which to do the job.

In other words, it is the systematic way in which the CBE elements are organized to revitalize vocational-technical education that is new.

Depending on the nature of your present program, there may be sweeping changes as CBE is integrated into the curricula—and all to the good:

- Your role as an instructor will change from that of the dominant information-giver to the even more rewarding one of student support and management.
- Your students will have new and greater responsibilities for their own learning and, with your help, will develop increased self-direction.
- Business, industry, and labor will be more closely linked to your instructional program as they assist you in identifying the occupational skills to be taught and provide field settings in which your students can continue to learn.

- Accepted school administrative policies and procedures will require a fresh look—many needing to be revised so more students can learn and so learning can take place more efficiently.

This module is designed to help you prepare yourself for CBE—whether you teach in a secondary or postsecondary institution. It does this in two ways. First, it will help you understand what CBE is all about—the educational philosophy on which it is based and how this is applied in practice.

Second, it will help you take stock so you can see what you need to do in order to successfully establish a CBE program. It will assist you in assessing your readiness for CBE and in developing a plan for gaining the knowledge and skills you need.

This module is **not** designed to give you all the skills required for planning, establishing, and maintaining a CBE program. This is a big job, and those skills are covered in the other five modules in this category (see the diagram on p. 2 to understand the relationship of the modules in Category K). In this module, you will simply gain skill in preparing yourself to tackle that job.

ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual teaching situation, prepare yourself for CBE. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 67–68, (*Learning Experience V*).

Enabling Objectives

1. After completing the required reading, critique the performance of a teacher in a given case study in explaining and describing CBE (*Learning Experience I*).
2. After completing the required reading and an initial inventory of your present readiness to operate a CBE program, develop a plan to gain the greater experience you need to do so (*Learning Experience II*).
3. After completing the required reading, critique the performance of the teachers in given case studies in orienting the school and community to CBE (*Learning Experience III*).
4. In a simulated situation, orient members of the school or community to CBE (*Learning Experience IV*).

Prerequisites

The modules in Category K are **not** designed for the prospective teacher with no prior training and/or experience. They assume that you have achieved a minimal level of **content knowledge** in your occupational specialty and **skill** in the core teacher competencies of instructional planning, execution, and evaluation. They then build on or expand that knowledge and skill level, specifically in terms of implementing competency-based education.

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I

Required

1–3 peers to work with you in discussing and assessing a case study (required only if you select this alternate activity).

Learning Experience II

Optional

Newsletter: Open Entries (quarterly newsletter to promote the exchange of CBVE information). Tallahassee, FL: The Florida State University, The Center for Studies in Vocational Education.

Membership in organizations devoted to the furtherance of CBE.

Learning Experience III

Optional

A vocational teacher in your service area experienced in orienting others to CBE whom you can interview.

An administrator experienced in operating a CBE program whom you can interview.

Learning Experience IV

Required

A group of peers to role-play members of the school or community whom you are orienting to CBE, and to critique your orientation. If peers are unavailable, you may present your orientation to your *resource person*.

Optional

Videotape or audiotape equipment to use in recording, reviewing, and self-evaluating your orientation.

Learning Experience V

Required

An actual teaching situation in which you can prepare yourself for CBE.

A resource person to assess your competency in preparing yourself for CBE.

General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center's PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher trainer education programs, you may wish to refer to three related documents:

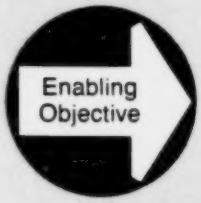
The *Student Guide to Using Performance-Based Teacher Education Materials* is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

The *Resource Person Guide to Using Performance-Based Teacher Education Materials* can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules. It also includes lists of all the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

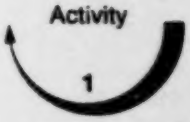
The *Guide to the Implementation of Performance-Based Teacher Education* is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of action.

Learning Experience I

OVERVIEW



After completing the required reading, critique the performance of a teacher in a given case study in explaining and describing CBE.



You will be reading the information sheet, Competency-Based Education, pp. 6–13.

NOTE: The next two items involve critiquing a case study **in writing.** If you prefer, you may instead complete this activity **orally** in a seminar session with one to three peers who are also taking this module.

You will be reading the Case Study, p. 14, and critiquing the performance of the teacher described.

You will be evaluating your competency in critiquing the teacher's performance in explaining and describing CBE by comparing your completed critique with the Model Critique, pp. 15–16.

Activity 1

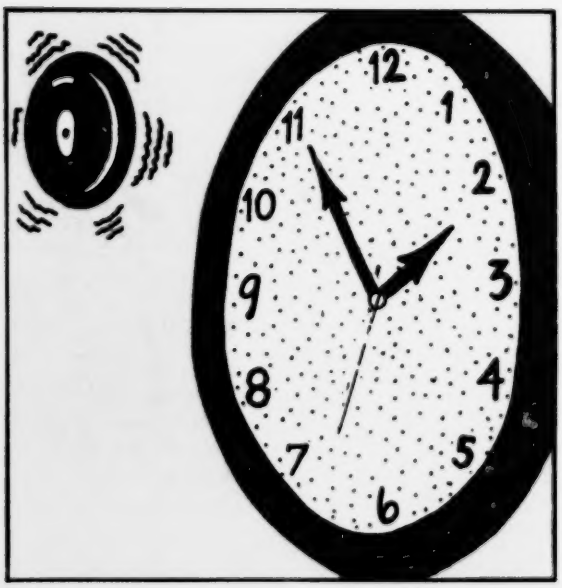
The competency-based approach to education is based on concepts somewhat different from those that form the basis for the conventional approach to education. For information on the nature of competency-based education, read the following information sheet.

COMPETENCY-BASED EDUCATION

Competency-based education (CBE) is considered by many to be one of the most significant educational innovations of the last fifty years. CBE has been endorsed at the local, state, and national levels, and it is also catching the attention of many international educators. CBE is a rapidly growing and sustained movement, which can lead to the improvement of instruction.

When educators visit CBE programs to observe them in action, however, what they see frequently does not tell the whole story. For example, in a fully functioning CBE program what may be visible is that students are working at their own pace on a highly individualized basis. Some students may have been in the program for two weeks, some for six weeks. The teacher may not seem to be "teaching" in the conventional sense of the word. CBE, in fact, may appear to be quite unstructured.

Nothing could be further from the truth. Indeed, it is its rigorous structure that is the strength of the competency-based approach. Let's look at this concept in more depth to uncover just what that structure is.



Essential Elements of CBE

Traditionally, educators at all levels have accepted the notion that learning is the variable and **time is the constant.** Whenever someone offers a course that involves a set number of hours of instruction, they are accepting this approach to education.

Having a set number of hours per course is admittedly an administrative convenience that is hard to give up. However, with that approach, teaching is often geared to covering as much information as possible in the time permitted and hoping that students will learn enough to allow them to be successful.

Many people feel that vocational and technical educators should be establishing programs in which **learning is the constant** and time is the variable. Vocational educators in many states are currently working hard to make this idea a reality in their programs through the implementation of CBE.

CBE differs, often significantly, from conventional approaches to training because of the educational philosophy upon which CBE is based. That philosophy, stated very simply, is as follows:

> Almost all learners can learn equally well if they receive the kind of instruction they need.

To make that philosophy work, CBE uses a very systematic approach to developing and delivering training.

The differences between CBE and conventional education can be illustrated by examining the steps involved in designing and offering a training program: determining what to teach, how to teach, what to test, how to test, and how to structure student progress through the program.

What to teach. The first—and probably most important—step in the instructional development process is determining what to teach: the content for a specific program. In conventional programs, program content is often derived based on topics listed in textbooks, skills included in curriculum outlines, and the instructor's own prior occupational experience. But textbooks, curriculum outlines, and the instructor's occupational experience often do not reflect the real world of work at the present time.

This leads to one of the basic strengths of the competency-based approach to training. The skills to be taught are identified by people who know best what tasks are performed in a given occupation: expert workers in the occupation.

CBE takes the view that it does not matter much what curriculum specialists think workers should be able to do, nor what instructors in the area think are probably the most important skills in the occupation. Instead, what really matters in determining the content for a training program are the tasks that current, skilled workers in the occupation actually perform.

Thus, the content of a CBE program is determined by a rigorous process of identifying the tasks performed by the worker on the job—the competencies (or skills) needed by the worker. When you know what tasks are performed by an employee in the world of work, you then know what skills to teach in your program.

Having arrived at this logical point in determining the content of a training program, CBE then goes one step further. The competencies to be achieved in a training program are made public. Thus, students know exactly what is expected of them in the training program. They know, in advance, the specific skills they must attain to succeed, both in the program and on the job.

All this can be summarized into the first essential element of CBE:

Competencies to be achieved are rigorously identified, verified, and made public in advance of instruction.

How to teach. Another essential element of CBE relates to managing the learning process. It is of utmost importance that learning be managed so that each learner has the opportunity to develop—and be evaluated on—the important occupational competencies that make up the program. This means that learning cannot be lockstep or by the numbers.

The competency-based approach acknowledges that people learn at different rates and in different ways. One person may learn more quickly, another more slowly, depending on the kind of task being learned.

Some people need a theoretical overview of the task before they can profitably attempt the task. They want to know how the process works before they try to use it. Other people need a hands-on, trial-and-success approach to a task from the very beginning. They want first to see the process demonstrated and to try it out. Then they may be ready to learn about the theory behind it.

One student might need the reinforcement of peers in group activities to learn effectively. Another student might be distracted by the group process; this student might learn best independently. The variation in the rate and style of learning from one learner to the next can be enormous.

CBE makes a point of accommodating this wide variation in potential rate and style of learning by providing for the individual development and evaluation of important occupational competencies. To the maximum extent possible, students are allowed to learn at their own best rate and in their own special way. This requires a shift away from the more conventional notion of whole-class, group-paced instruction.

It is not adequate, for example, to specify that **all** students will listen to a lecture, view a film, spend 45 minutes at practice stations in groups of three, have 15 minutes to ask any questions, and then sit down to take a test on the content to be learned. This will not meet the needs of all learners. The types of activities will be wrong for some, the sequence of activities will be wrong for others, and the pace of the activities may be wrong for most.

If time, money, and effort are invested in a training program, why not manage that training so that learning does, in fact, take place—in the most effective and efficient way possible. Thus, the second essential element of CBE:

The instructional program provides for the individual development and evaluation of each of the competencies specified.

What to test. A necessary part of any training program—whether conventional or competency-based—is testing to determine whether learning has occurred. Therefore, another step in designing a training program is to determine exactly what is to be tested.

In this matter, CBE again differs from more conventional approaches. CBE emphasizes proficiency and performance above all else. Consequently, the final measure of competence is whether the student can actually **perform** each competency according to given criteria.

This does not, by any means, ignore the importance of knowledge and attitudes. Attitudes are critical, but they can be tested through observation of performance. Knowledge is recognized as an essential prerequisite upon which performance is founded—and knowledge should be tested—but it is not an end in itself.

What ultimately matters—to both trainees and employers—is the trainees' ability to perform tasks, not just knowledge of how to do so. After all, if you have a leaky faucet, what kind of plumber do you want to fix it? One who can wax eloquent on the principles of hydraulics? Or one who can stop the leak?

This leads to the third essential element of CBE:

Assessment of competency takes the student's knowledge and attitudes into account but requires actual performance of the competency as the primary source of evidence.

How to test. Another step in the process of designing a training program is to determine how to evaluate students' learning. In many conventional programs, a norm-referenced grading system is used. In such a system, the achievement of one student is compared to that of the other students, with a minimum grade requirement constituting successful achievement.

Furthermore, with such an approach, there is often an element of the unknown. To test students' "actual knowledge," the exact questions to be asked are not given out in advance. And if no one gets 100 percent of the answers correct, the test may be graded "on the curve." Thus, in conventional programs learners may not know, until they get the tests back, how "well" they did—in comparison to the other students.

CBE, on the other hand, focuses on each student's ability to perform specified occupational tasks according to established occupational standards. And the view is taken that it does not harm the learning process if everyone knows beforehand precisely how students' performance on occupational tasks will be evaluated. On the contrary, if learners know in advance exactly how to judge whether their performance is correct, their learning will likely be both more efficient and more effective.

This approach to evaluating learning does depend, of course, on having valid, specific, high-quality criteria by which to judge performance. Fortunately, an excellent source is available for determining the criteria needed in developing the performance checklists that will be used to evaluate performance: the occupation itself.

Just as expert workers in the occupation are used to identify the important occupational competencies, current occupational practices indicate what criteria are actually used in the occupation to judge successful performance.

Thus, the fourth essential element:

Criteria to be used in assessing achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance.

How to structure progress. Student progress in a CBE program depends on only one thing: attainment of the important occupational competencies. Students do not study a topic for two weeks, take a written test on it, and then go on to the next topic regardless of how they did on the test.

In CBE, students move ahead to the next competency when they can successfully perform the competency currently being worked on. In theory, it doesn't matter whether it takes a trainee one day, one week, or one year to successfully perform a given competency. (In practice, reasonable time constraints usually operate.)

What matters is that the trainee **learns** and performs one competency successfully before moving on. Students cannot simply accept a poor or failing grade on a particular unit and then attempt to progress through further work, lacking prerequisite knowledge or skill. Neither can they hope that a poor rating on one competency will be offset by an especially high rating on another. Each competency counts.

A parallel concept is that students are considered to have completed the program only when they have mastered all the specified skills, not when the calendar or clock says they have. It isn't important that a student has been enrolled for an academic year or has put in 1,240 hours of attendance. What is important is that he or she has acquired the skills needed to get and hold a job in the occupation.

The fifth and last essential element of CBE, then, is as follows:

Students progress through the instructional program, at their own best rate, by demonstrating the attainment of specified competencies.

You have seen thus far how the basic decisions about content, instruction, testing, and student progress are made in competency-based programs. Designers and implementers of every well-developed CBE program use these principles in formulating instructional and management procedures.

Facilitating Characteristics of CBE

In addition to the five essential elements of CBE programs, there are a number of facilitating, or supporting, characteristics that should be part of any CBE program. These can be grouped into instructional characteristics and administrative characteristics. Although there are variations among programs, most mature, fully functioning CBE programs exhibit most, if not all, of the characteristics listed in the following two facilitating categories.

It is these facilitating characteristics that help to bring the potential of CBE into full reality. They allow students to learn efficiently and instructors to teach effectively. They make vocational-technical education more rational and relevant than ever.

Facilitating instructional characteristics. The instruction is designed to include the following elements:

- The instructional materials used (e.g., learning guides or modules) are keyed to the competencies to be achieved.
- Environments that duplicate or simulate the work place are available to students during competency development.
- Basic knowledge or background theory is learned as it is needed to support competency development.
- Students are informed about the traits and attitudes important to workers in the occupation and are periodically evaluated regarding their attainment.
- Each student is given continual and detailed feedback on competency development.
- A variety of learning styles and teaching strategies is provided for.
- Students with appropriate prerequisite skills and knowledge may bypass instruction on competencies already attained.

Facilitating administrative characteristics. The program is organized and supported administratively to include the following elements:

- Program completion is based on satisfactory achievement of all specified competencies.
- Students can enter and exit from the program at different times.

- Individual student records are maintained and reflect student progress at any given point in time.
- Materials, space, and equipment are available when needed by students and instructors.
- The record-keeping system permits student transfer into and out of the program without requiring duplication of instruction on competencies already achieved.
- The requirement of a designated number of hours of instruction is removed from the criteria for program completion.
- Records of competency attainment are provided to students and prospective employers.
- Student grades, if used, reflect the level of competency achievement attained.
- Credit, if awarded, is given for competencies achieved as a result of instruction and for demonstration of previously acquired competencies.
- Student fees are individually assessed and are based on the time actually spent in the program and the instructional resources used.

The extent of your involvement in the implementation of these administrative characteristics will, of course, depend on your particular situation. It may be that you are trying to implement CBE on your own, in your own program; in that case, your role may be to convince the administrative staff that some of these characteristics are required to support your efforts.

On the other hand, you may be part of a CBE implementation team in a schoolwide effort; in that case, it may be your responsibility to actually provide for these administrative characteristics. Or the school may be moving systematically to ensure that the CBE program includes all these characteristics, and you may not need to be involved at all.

Implementing the Elements and Characteristics

If you read about CBE in the literature and talk to various educators who have a great deal of experience in implementing CBE, you will find some variations in what people present as the essential elements and facilitating characteristics of CBE. However, these variations tend to reflect differences in emphasis rather than differences of opinion concerning what a fully functioning program looks like.

In fact, the goal remains the development of CBE programs that possess all the essential elements and most of the facilitating characteristics discussed. But exposure of the concepts underlying CBE to the realities of conventional vocational-technical programming has revealed some practical concerns. Trying to move, in one step, from a highly conventional program to one that includes all the essential elements and facilitating characteristics of CBE often has disastrous results.

Faced with the idea that they will have to immediately implement a CBE program exhibiting all the essential elements and facilitating characteristics, some schools have abandoned the idea of implementing CBE before they have even begun. For example, some secondary schools could not conceive of taking such an extreme step as allowing for open-entry/open-exit. Other schools knew they did not at present have the resources (staff, time, money) to develop individualized learning guides. And, as a result, these schools sometimes assumed that CBE was not for them.

Consequently, some experts suggest that, in many cases, CBE is more likely to be implemented successfully if it is implemented incrementally. In other words, it is far better to take one step at a time—and to get each element securely in place before proceeding to the next element.

To that end, you could focus first on establishing the groundwork for CBE: rigorous identification of (1) the actual tasks performed by incumbent workers on the job and (2) the criteria by which performance of those tasks is assessed.

The identified tasks, or competencies, can be used as a basis for developing instruction. And the criteria can be used in developing criterion-referenced performance checklists for measuring student achievement of the requisite competencies.

Furthermore, once both competencies and criteria have been identified and established, these can be made public to students in advance of instruction.

At that point you would have addressed three of the five essential elements:

- Competencies to be achieved are carefully identified, verified, and made public in advance of instruction.
- Assessment of competency takes the student's knowledge and attitudes into account but requires actual performance of the competency as the primary source of evidence.
- Criteria to be used in assessing achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance.

Initially, however, the instructional mode used to teach those competencies and to assess student performance may be fairly conventional—teacher-directed, group-based, and group-paced.

It is highly unlikely, though, that instruction will remain conventional for very long. Once those three essential elements are in place, the need to implement the remaining essential elements and the facilitating characteristics usually becomes quite obvious.

For example, it should become readily apparent that, as students work to achieve competencies, they do not all progress at the same rate. What then do you do with those who are moving more slowly or more rapidly than the group pace set? How do you find time, within group instruction, to individually evaluate student performance on individual competencies? Clearly the instructional delivery system

will have to be modified accordingly. In fact, it will need to be modified to incorporate the remaining essential elements:

- The instructional program provides for the individual development and evaluation of each of the competencies specified.
- Students progress through the instructional program, at their own best rate, by demonstrating the attainment of specified competencies.

And in order for the instructional program to provide for the individual development and evaluation of competencies and student self-pacing, you would inevitably discover that you need to implement some or all of the facilitating instructional characteristics previously described.

The natural evolution of the implementation process does not end there. In fact, once the essential elements and facilitating instructional characteristics are established, it will become equally clear that the system won't work well unless the existing administrative characteristics are modified—or new procedures are developed—to accommodate the elements of the CBE system.

This is not to suggest that CBE should be implemented blindly, without planning in advance for the changes that will ultimately be required to support its implementation. Rather it is an acknowledgement that many conventional programs find it difficult if not impossible to fully implement CBE all at once.

Instead, therefore, it is recommended that such programs move slowly and methodically into implementation such that the foundation is first laid . . . and then the instructional design is systematically modified to accommodate that existing and solidly laid foundation . . . and finally the administrative procedures are revised as necessary to accommodate the instructional design. In that way the changes can evolve and the CBE program can grow into maturity incrementally and naturally.

Advantages of CBE

Much work is yet to be done to document the effects of competency-based instruction. Enough is already known, however, to have identified a number of genuine advantages of this approach. These may be characterized as educational advantages (i.e., effects on students) and management advantages (i.e., effects on schools).

Among the most important **educational reasons** for implementing a CBE approach are the following:

- More learners achieve competence than is possible in group-centered instruction.
- Learners may achieve competence in a shorter period of time.
- The learner builds self-confidence and self-esteem by succeeding in learning.
- Students learn to help each other rather than compete for grades.
- The content of instruction is well organized and consistent.
- The final result is an entry-level worker who is more uniformly prepared in basic occupational skills and abilities.
- Students can learn according to their preferred learning styles.
- Students are not required to repeat learning of skills previously acquired.

Secondary and postsecondary occupational programs designed to capitalize on the educational advantages of CBE find that there are very significant administrative and management benefits to this approach as well. In fact, it can be argued that the **management reasons** for CBE are in themselves justification enough. Among the most important of these reasons are the following:

- Students can obtain ready access to instructional programs.
- Students with a wide range of skills can be accommodated.
- Programs are readily revised and kept current.
- The instructional staff can be utilized more efficiently.
- Facilities can be utilized more fully and efficiently.
- The placement of graduates in jobs is facilitated.
- Students with special/exceptional needs can complete segments of an instructional program—segments selected with their specific needs and abilities in mind.
- Vocational-technical programs develop and maintain stronger linkages with business, industry, and labor.

CBE Terminology

It should be noted that, in this newly developing movement, the terminology used in discussing CBE varies widely. Terms and acronyms for such programs abound. In addition, the terms used to describe the different elements of CBE programs are numerous, as illustrated in sample 1.

These differences in terms are not, in themselves, important. What is important is that **all** CBE programs, regardless of the specific terms attached to them, should be developed based on the essential elements and facilitating characteristics described previously in order to be considered truly competency- or performance-based.

SAMPLE 1

CBE TERMS

Competence: Achievement—to a specified degree of proficiency—of the knowledge, skills, and attitudes required by a worker in order to perform a given occupational task. Also frequently called *skill.*

Competency-Based Education (CBE): An instructional program for preparing students in which the emphasis is upon students' developing and demonstrating specified occupational competencies as measured by performance tests. Other terms used are *performance-based education (PBE), competency- based* or *performance-based instruction (CBI, PBI),* or *competency-based vocational education (CBVE).*

Competency Profile: A graphic portrayal of all the duties and associated tasks performed by workers in a given occupation.

Criterion-Referenced Evaluation: The evaluation of student performance based on occupational standards established in advance of instruction, rather than on comparisons between or among students.

Curriculum: A description or series of statements about what is to be learned by a student in a particular instructional program (i.e., a product that states the intended learning outcomes).

DACUM: An acronym for **D**eveloping **A C**urriculum, an approach to occupational analysis that involves bringing occupational experts together under the leadership of a trained facilitator.

Individualized Instruction: An approach for managing the instructional process within which the focus is on helping individual learners (as opposed to groups of learners) acquire the knowledge, skills, and attitudes needed, in a manner designed to accommodate their unique differences.

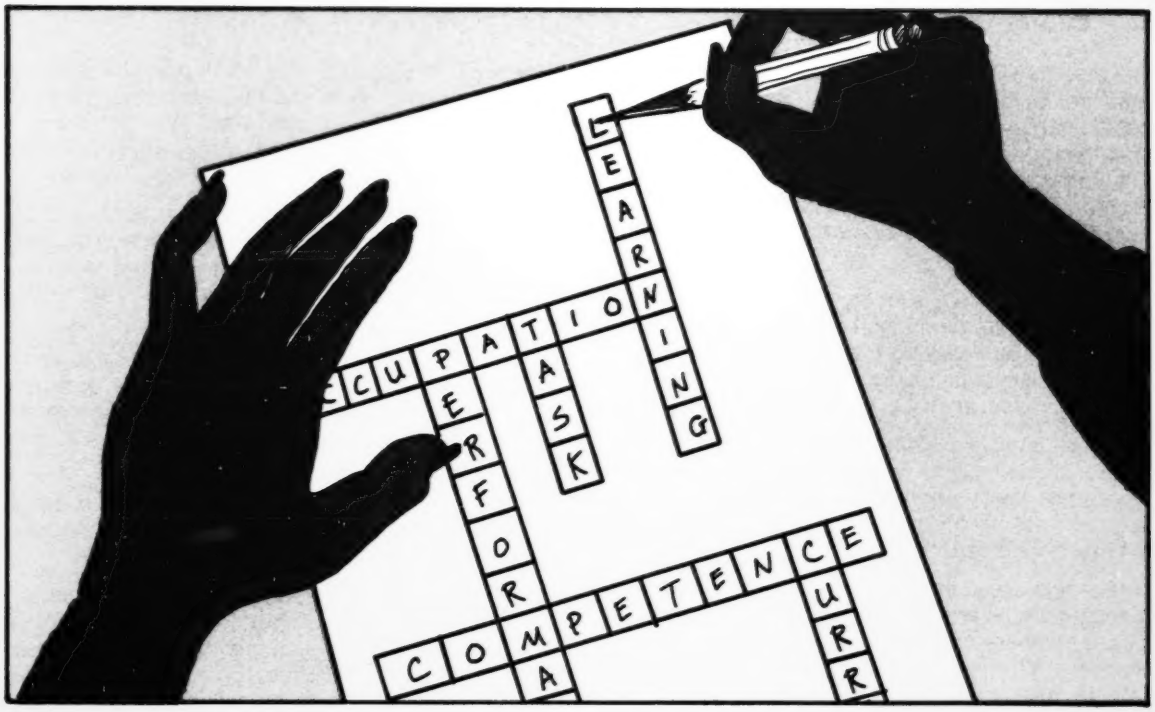
Instruction: Whereas curriculum identifies the instructional content (what is to be learned), instruction is the process (the **how** or the means) by which the intended learning will be achieved.

Learning Package: A general term used to describe the many types of student learning materials used in CBE programs. Two of the most commonly used types are learning guides and modules.

- **Learning Guide:** A type of learning package that usually contains a terminal objective, enabling objectives, directions for learning activities, a listing of the external supportive resources needed, and evaluation activities. While learning guides are developed in a wide variety of formats, most depend on external resources to provide the content needed.
- **Module:** A type of learning package that usually includes a terminal objective, enabling objectives, essential cognitive information, and evaluation activities. While modules are also developed in a wide variety of formats, most are self-contained, transportable, and designed for individual or group use.

Occupational Analysis: A process used to identify the duties and tasks that workers perform in any given occupation. A number of alternative and acceptable approaches to occupational analysis are available. Also frequently called *job analysis.*

- **Duty:** An arbitrary clustering of related tasks into a broad functional area or general area of responsibility. Duties are also called *duty areas* or *general areas of competence (GAC).*
- **Task:** A work activity that is discrete, observable, and performed within a limited period of time, and that leads to a product, service, or decision. Tasks are also frequently referred to as the *skills* or *competencies* that students or trainees must possess in order to be successful workers.



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NOTE: The following activities involve critiquing a case study in **writing.** If you prefer, you may set up a seminar session in which you and a group of one to three peers, who are also taking this module, can **orally** critique the case study.

Activity 2

The following case study describes how one teacher explained and described competency-based education (CBE). Some of his views are accurate; some are off-base. Read the case study and **critique in writing** the teacher's views concerning CBE. In addition, indicate what you could say to help the teacher clarify his views.

CASE STUDY

Jenny Whitley and Millard Springer, vocational teachers from Palmetto County Vocational-Technical Center, are having an intense discussion in the staff lounge. They are talking heatedly about implementing competency-based education in vocational programs. CBE is the subject of a workshop to be held the following evening at the nearby state university campus.

Jenny feels more strongly than Millard that CBE can and should be implemented in vocational education. She is, however, intrigued by some of what Millard is saying. Finally, she asks him to state clearly and succinctly his position on CBE.

"Look, Jenny, we know that CBE is said to provide a 'fit' between job training and competencies needed on the job, right? But I fail to see how that is any different from what we have always aimed for. What's the big deal?

"For example, in CBE, students' programs are based on something called **occupational analyses.** These are evidently developed by actual CBE teachers. Well, haven't we always spent much time and energy developing competency lists on the basis of our own occupational experience?

"And, I don't know about you, but students in my program have always been evaluated on the basis of performance. They are expected to perform each required competency in the lab, and I evaluate the process or product according to established occupational standards. Based on my own occupational experience, those standards are firmly etched on my brain. Again, how is that different from CBE?

"On the other hand, when it comes down to implementing CBE, I find many of the requirements downright impractical. For example, teachers in CBE programs have to develop a learning guide for each competency—complete with a wide selection of learning activities so that every student in the class can find one they like.

"Furthermore, CBE programs are supposed to be totally individualized. That means that each student decides what competencies to pursue, in what order, and then works alone, at his or her own pace, to achieve those competencies.

"Seriously, Jenny, does that make sense to you? The reason those people are students is because they don't yet have occupational skills and experience. On what basis, then, can they intelligently select what skills they need?

"Now tell me truthfully, Jenny. Wouldn't you really mind having to give up the control you have over what **you** think should be taught and learned?

"Why, our duties and responsibilities would be reduced to practically nothing. You could set out a stack of CBE learning guides and hand a progress chart to each student. Then you could tack a *Gone Fishing* sign on the door and make a beeline for the staff lounge. We could all sit in here and talk about how wonderful it was that our students were working on their own.

"Of course, we would check on them occasionally. But, really, for what reasons? The learning process is time-variable. So, what should we care if some students seem to be taking all the time in the world? And the learning activities are all spelled out in the learning guides. What could students possibly need from us in the way of instruction?

"Quite frankly, Jenny, CBE seems like some educational patent medicine. And I just can't swallow it!"

Feedback 3

Compare your written or oral critique of the teacher's explanation of CBE with the model critique given below. Your response need not exactly duplicate the model response; however, you should have covered the same **major** points.

MODEL CRITIQUE

Millard Springer appears to have gotten unduly upset in his somewhat inaccurate and defensive summary. He needs correction on certain basic assumptions about CBE. He also needs clarification regarding what he thinks would come to pass if CBE were implemented.

Most of all, Millard probably needs reassurance. His reactions are not atypical. Many of his remarks were made in defense of the quality of his existing instructional program. In other words, he seems to feel that to accept CBE is to admit that all his past efforts were substandard. He knows that is not true.

Millard needs to understand that, in fact, CBE recognizes and draws upon the numerous strengths that have always characterized good vocational-technical programs. Where CBE is different from what has gone before is that it organizes these elements—these strengths—in a systematic and rigorous way to provide a revitalized whole.

Millard is right in assuming that the identification of occupational competencies and the assessment of student performance of those competencies are essential elements of CBE. And he is to be congratulated in having recognized the importance of these two elements in his own instruction.

But Millard has failed to recognize the amount of rigor involved in implementing these two elements in a CBE program. He has always generated the competency list based on his own occupational experience, and he assumes that the same approach may be used in CBE programs. Yet, how long has it been since Millard was employed in the occupation? The longer it has been, the less likely it is that the list he identifies will reflect reality.

Likewise, how accurate do you suppose his idea of occupational standards would be if he's been away from the occupation for any length of time. Standards may change. In Millard's case, they could change somewhat from day to day, since he has them "etched on his brain" rather than specified in writing. Millard has obviously not understood that, in a CBE program, competencies and standards are made public in advance.

You could, for a start, describe for Millard the process of occupational analysis in a CBE program. You could discuss the importance of input from actual workers and business and industry personnel. These people should be involved in identifying, sequencing, and/or verifying competency lists. They can also assist in the subsequent development of competency-based learning objectives, learning activities, and performance criteria.

Given this foundation, then, students are not blindly identifying what skills they will develop, as Millard fears. The competencies required are specified and sequenced. Thus students know what skills they must acquire and what skills are prerequisite to other skills. With this information—and the assistance of the instructor—students can indeed play a role in designing a program to meet their specific occupational goals.

Millard Springer also needs to understand the difference between the essential elements and the facilitating characteristics inherent in a CBE program. CBE teachers do not necessarily have to develop learning guides. That is one good approach to facilitating individualized instruction—if the necessary resources are available. But other existing instructional materials can be used to accomplish the same purpose.

Furthermore, Millard needs to know that individualized does **not** mean that each student always works alone. Rather, it means that in a CBE program it is not acceptable to aim instruction at the group and ignore those students whose needs are not met by that approach. Each student in a CBE program must be helped to meet each competency. Since, in reality, individuals have different needs and abilities and learn at different rates, the instruction must reflect this fact insofar as possible.

In fact, the essential elements require that the instructional program, (1) provides for the individual development and evaluation of the competencies specified and (2) allows students to progress through the program, at their own best rate, by demonstrating

the attainment of specified competencies. The essential elements do not state that students must work alone, without interaction with peers or the guidance and assistance of the instructor.

Indeed, the instructor in a CBE program is a very busy person with numerous duties and responsibilities (as will become increasingly clear in subsequent learning experiences in this module). Consider the tasks implicit in implementing a CBE approach. How will the instructor provide individual assistance as needed, answer questions that arise, evaluate individual students as they perform each competency, provide continual feedback on student progress, maintain records of student progress, and so on, if he or she is sitting in the staff lounge?

Contrary to Millard's final statement, CBE does not claim to provide easy answers to difficult instructional-design questions. It is not an "educational patent medicine." Rather, it attempts to provide a structured and systematic approach to ensuring that students' needs are met by the instructional program and that students are indeed prepared to enter the world of work—as it exists today.

Let us hope that Millard's misconceptions and misgivings are dealt with adequately in the CBE workshop he will attend the following evening.

Level of Performance: Your written critique of the teacher's explanation of CBE should have covered the same **major** points as the model critique. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Competency-Based Education, pp. 6–13, or check with your resource person if necessary.

Learning Experience II

OVERVIEW

Enabling Objective

After completing the required reading and an initial inventory of your present readiness to operate a CBE program, develop a plan to gain the greater experience you need to do so.

Activity 1

You will be reading the information sheet, Getting Ready to Operate a CBE Program, pp. 18–26.

Optional Activity 2

You may wish to subscribe to the newsletter, *Open Entries,* or to join organizations devoted to the furtherance of CBE.

Activity 3

You will be examining your attitudes and knowledge concerning CBE by completing the Readiness Inventory, pp. 27–28.

Activity 4

You will be using the Planning Worksheet, pp. 29–30, to develop a plan to gain the greater knowledge, skills, and experience you need to operate a CBE program, as indicated by the results of your inventory.

Feedback 5

You will be evaluating your competency in developing a plan to gain the greater knowledge, skills, and experience you need to operate a CBE program, using the Planning Worksheet Checklist, p. 31.

Activity 1

How does a program with the elements and characteristics of CBE operate? What is your role, as instructor, in operating a CBE program? For information on operating a CBE program and how you can prepare for your role as instructor, read the following information sheet.

GETTING READY TO OPERATE A CBE PROGRAM

How are the elements and characteristics of competency-based education (CBE) carried out in the operation of a CBE program? How is the differing emphasis of CBE on performance, student responsibility, time-variable learning, and so on, translated into reality? Let's consider each of the special characteristics of CBE in greater detail, in terms of its potential effect on you, the vocational-technical teacher.

Carefully Identified Competencies

Vocational-technical teachers have always sought to give students the skills they need on the job. However, the process of selecting those skills has not always been thought through or systematically accomplished to the degree necessary.

Typically, course content has been derived from the topic headings in a textbook. Or from the teacher's examination of his/her own experience. Or from an official course outline derived from a combination of sources and provided to the instructor.

Frequently, what was taught in the classroom and lab was affected by the kind of equipment available. Or by the amount of time scheduled for the course. Or by what the instructor felt most comfortable in teaching.

These approaches to selecting program content have served reasonably well but are no longer considered good enough.

A truly competency-based vocational program is built on some form of the process called occupational analysis. The process may or may not be conducted by the particular school installing CBE. However, whether it is done by the school or by another agency, it results in a list of skills needed by the worker in the specific occupation being analyzed. One form of occupational analysis involves the following steps:

1. A search of the occupational literature is made to construct a tentative list of tasks needed by workers in the field.
2. The list is reviewed and revised by a committee of workers and supervisors.
3. The revised list is presented to a large random sample of incumbent workers who check each item to indicate whether they actually perform the task on the job, and how frequently they perform it.
4. The results of workers' analyses are used to construct a final task list, learning guides, and criterion-referenced performance test items.

Other methods of occupational analysis may involve different steps. In one widely used form, expert workers participate in an intensive three-day brainstorming session led by a neutral facilitator. In another method, a panel of expert instructors prepares a tentative competency list under the guidance of a curriculum specialist. Then the list is modified and verified by an ad hoc committee of incumbent workers and supervisors from the area.

These kinds of rigorous analysis processes provide a far more defensible foundation for instruction than we have ever had before. Without a verified, up-to-date list of competencies, a program cannot be considered to be competency-based—no matter how carefully other aspects of the program are organized.

With a list of competencies in hand, you can then write a series of learning objectives for students based on the competencies. Or you can go directly to developing instructional packages, using task statements—supported by activity directions and criterion-referenced checklists—instead of formally stated objectives.

The competencies or skills must be stated in terms of worker performance. In other words, they must be observable so that you can assess students' actual performance of each skill based on specified criteria—the criteria used for beginning workers on the job. With each competency defined, learning activities can be provided to help students achieve proficiency.

Role of Instructor

The instructor is the single most important factor in any vocational-technical program—including CBE. Without knowledgeable and competent instructors assisting, guiding, evaluating, interacting, and helping students in the program to develop the desired competencies, development of those skills will not occur. It is this interpersonal dimension, so important to the individualization of the program, that is in many ways unique to CBE.

There is no doubt that a teacher first experiencing the competency-based approach will find that his/her role has drastically changed. And the necessary adjustment is not always easy.

The instructor is no longer the dominant force in the classroom—giving lectures to a large group of upturned faces, administering pop quizzes or full-length examinations to the total class, planning the daily or monthly routine of the group down to the last efficient minute.

Instead, the focus has changed. The student is given much more responsibility for learning, and the teacher—now the **learning manager** or **resource person**—has much more of a supporting role.

The rest of the modules in Category K expand on every aspect of the instructor's role in CBE. But briefly, it can be said to involve being an advisor, helper, and evaluator of the students in the program.

As **advisor,** the teacher works with individual students to (1) clarify career goals and (2) select a program of competencies to meet those goals.

As **helper,** the teacher (1) provides students with individual instruction as they need it, (2) helps solve learning difficulties, and (3) manages the learning environment so students can develop skills as efficiently and smoothly as possible.

As **evaluator,** the teacher (1) helps each student determine when he/she is ready for evaluation, (2) conducts objective evaluations of the student's performance, and (3) provides continual feedback to promote student learning.

In addition to these major roles, there may be other subordinate ones, depending on the situation and institution. Some instructors are also given responsibility for developing instructional materials. Others serve as program coordinators. All these roles may require significant change from what the teacher may be used to. But each has its own challenges and its own rewards.

As many teachers new to CBE have said, "I've never worked so hard in my life . . . but I wouldn't have it any other way."

Role of the Student

The major change in the role of the student relates to the amount of active involvement required. Many of your students will be accustomed to group-oriented types of instruction in which their role is a relatively passive one. In a CBE program, they will be required to take much more responsibility for their own learning.

Ideally, each student will, from the beginning, be involved in planning and implementing his/her own program. This kind of student participation is critical in CBE. Initially, student involvement may be quite structured. However, as students proceed through the learning activities, they learn when to ask for assistance and when to proceed on their own.

For example, in CBE programs, students may request to have their performance of a skill assessed when they feel ready. When this occurs, students become aware of their progress and are more personally engaged in the learning process.

Known Learning Objectives

Before a student begins any CBE program and uses any instructional materials, he/she should be clearly informed about (1) what skills he/she will be learning, (2) under what conditions the skills will be evaluated, and (3) the specific criteria to be used in determining whether competence has been achieved. This information is generally provided in the form of learning objectives.

In well-developed CBE programs, the specific criteria to be met are often spelled out on specially prepared performance checklists. Students can examine a given checklist and determine exactly what the instructor will be looking for: the techniques to be used, the results to be achieved, the qualities expected.

The required level of performance is not some arbitrary standard. It is the performance expected of a beginning worker in the occupation. The instructor's long experience and expertise in the field allow him/her to rate performance.

Individualized, Time-Variable Learning

Although the ideal CBE program may include no formal courses, many CBE programs reflect varying degrees of integration within conventional programs. CBE may be implemented as one part of a formal course, as two or three courses of study within an occupational service area, or in a total vocational-technical program.

Regardless of the program structure, in CBE every student's program should be **individualized.** Each student should be pursuing a planned sequence of competencies specifically selected to meet his/her individual abilities, interests, and career goals.

For example, some students may have achieved certain occupational competencies through previous experience (e.g., through military service, industrial training, or life experience). These students should be allowed to "test out" on the specified competencies, consulting with the instructor concerning the time and conditions for demonstrating proficiency.

In a competency-based program, it is not important where or how the student learns—achievement is what matters.

In CBE, every student's program should also be **self-paced.** During the time they are in the program, students should be allowed to work on achieving competencies at their own best rate. By **best rate,** we mean "at the optimal level for their capabilities and personal learning style"—not just if and when they choose.

Ideally, at no point does a student have to attain a competency by a specified time. Each can, in fact, repeat learning experiences or complete alternate learning experiences until he/she is able to demonstrate competence.

Furthermore, students should be able to enter the training program whenever **they** are ready—not just when the school finds it convenient to accept them. They should also be able to leave for a job when they have acquired some saleable skills. When they are ready to return and complete the total program, there should be no waste of time or penalty.

In theory, it is possible to use the competency-based approach in a traditional group-based course, but in practice this does not work out well. At the beginning of such a course, all students in the class may be working on the same competency, but as they proceed, some students will achieve the skill more rapidly than others.

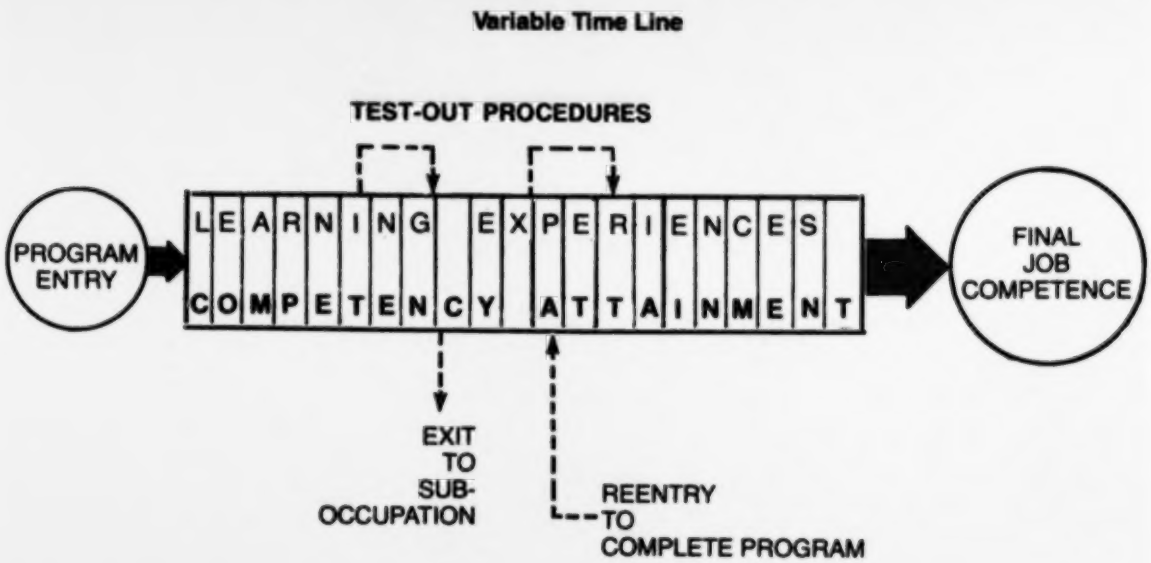
As a result, the teacher is in a difficult position. Should the whole class be held up until the slowest student achieves the skill, or should instruction proceed as soon as the more capable learners have achieved the skill? In the second case, slower learners get further and further behind in instruction as the course moves on without them.

Individualized instruction and competency-based learning packages (modules or learning guides) provide one feasible answer. Use of learning packages—chosen by the student and resource person to meet the student's particular occupational needs and individual interests—allows each student to proceed at his/her own pace and, when necessary, to "recycle," or repeat learning activities until competence is achieved.

Sample 2 illustrates some of these points in graphic fashion.

SAMPLE 2

CBE PROGRAM MODEL



Supplementary Activities and Resources

The student does not always work alone in a CBE program. Activities are planned to foster interaction among students who are working on the same competencies. Small-group work (e.g., role-playing and simulation activities) may be arranged. Small-group discussions may be planned.

An audiovisual presentation may be made to a large group. An experienced worker or expert from the students' occupational area may serve as a resource person to help with special problems or concerns at the appropriate time. Field trips, too, can be planned as an excellent on-site resource.

For example, students in child-care programs may need to get together frequently to discuss the basic techniques they are all learning. Students in a decorating, painting, and drywall program may, as a group, view a filmed demonstration of a special technique that cannot be demonstrated in the lab.

Role-playing and simulation activities may help a small group of dental assistant students with procedures and techniques for talking with patients and interacting with employers. An expert welder may be able to offer solutions and "tricks of the trade" to students who are all involved in similar kinds of welding activities.

A trip to a food packaging plant may give students in a packaging program a chance to see what the job environment is like and what actual job skills are performed during a real workday or job shift. It is a bit more difficult to schedule such events in an individualized program than in a conventional program, but it can be done.

Performance as Competence

In CBE, competence is ultimately assessed by **performance.** It does not stop with paper-and-pencil measures—unless, of course, the skill is a paper-and-pencil skill, such as editing typed copy.

For example, a gourmet chef's competence is not assessed by asking him/her to describe how to concoct a souffle. The proof of the pudding is in the eating, as the old saying goes. Similarly, a student cannot simply read about proper procedures for hanging wallpaper, take a test on what he/she absorbed, and accurately be called competent as a paperhanger.

Employers want to know that the workers they hire will be able to perform without taking valuable time—as paid workers—to learn by trial and error. Of course, vocational-technical education has always been concerned with performance, but the CBE approach places new and systematic emphasis on this principle.

In some occupational areas, of course, legal requirements demand that students be able to pass a standard written examination. Nurse's aides are tested on technical vocabulary; law enforcement students need to demonstrate knowledge of the local legal code.

In most situations, however, paper-and-pencil tests are interim measures. They are used to assess students' cognitive skills or background knowledge **before** the student proceeds to the performance aspects of the skill. They are used to aid the student in reaching competence—first through knowledge, but ultimately through practice and performance.

Furthermore, performance, in CBE, does not mean just trying once on a written or skill test. Successful performance of a skill, in CBE, means meeting occupational standards—performing that skill according to established performance criteria made public in advance.

A student in a CBE program cannot "fail" a particular competency and still successfully complete the program through grade averaging (e.g., 1 *A* + 1 *B* + 1 *C* = *B*). Rather, students must successfully perform each competency, one by one.

Preparing Yourself

As you can see, a CBE program operates differently from most conventional programs. Perhaps the most relevant difference to you is the change in your own role and that of your students. One important task, then, in preparing yourself to implement CBE, is to **assess your own readiness for the role of learning manager in a CBE program.** How qualified and willing are you at present to act in a new capacity as learning manager?

First of all, consider your qualifications. Do you know enough at this point about CBE in general? Of course you are probably not prepared to write the definitive textbook treatment on the competency-based approach. In fact, you needn't be. You should, however, have a general understanding of the principles upon which CBE is based and the application of those principles in operating a CBE program.

Then, consider your willingness. How enthusiastic are you about functioning as a learning manager, facilitator, and coordinator? Are you comfortable with the idea that students will be more responsible for their own learning? Can you contemplate calmly the thought that, in a CBE program, you might sometimes have students doing a number of different things at one time in the same room?

If your own attitudes are not appropriate—if you find yourself less than willing—you are less likely to be successful in operating a CBE program. Should you be unsuccessful at CBE, you will be doing a disservice not only to yourself, but also to your students.

Consequently, if you find that your attitudes toward CBE are inappropriate, you will need to take action. You will need to take a fresh look at CBE and your role in it. You will need to keep your mind open, put your attitudes on hold, and allow yourself the time and opportunity to think once more.

As you assess your readiness for CBE, you will probably **identify specific needs for additional knowledge, skills, and experience in the area of CBE.** For example, although the information presented previously on CBE is accurate and provides an initial overview, you may need additional knowledge about CBE from other sources. It may also benefit you to gather some firsthand experience with an operating CBE program, especially in your own occupational specialty.

You should note these needs as you identify them. Then you can **plan specific means to fill those needs.** Let's look at some of the ways in which you can gain the additional knowledge and experience you may need.

Participate in Professional Development Activities

There are numerous activities in which you could participate to gain additional knowledge of the characteristics of CBE programs and how they function. These activities might involve a variety of sources, ranging from your local library, to local schools, to colleges or universities.

One activity you might consider is reading reliable reference works. There is a good deal of literature available on CBE: general characteristics of CBE, differences between CBE and conventional approaches, implementation and management concerns in CBE, and so on. Books, periodicals, dissertations, and research studies should be available to you through libraries in your community, your school, or a local college or university.

In consulting these resources, you should keep in mind that they should be current. CBE is an emerging field, with new developments taking place all the time. You need to take advantage of the latest work and thinking concerning CBE. A book published only five years ago—which, under ordinary circumstances, would probably be considered quite current—could be completely out of date.

You will probably also find courses, workshops, and conferences offered locally on the topic of CBE. These activities may be part of school- or district-wide staff development programs, especially if CBE

is being implemented locally. They may also be offered by local colleges or universities or by various professional organizations operating locally.

You will need to take the initiative yourself in discovering what activities of this kind are available in your own situation. If you are an inservice teacher, you could urge your administration to offer activities of this nature to staff. You could also suggest to local professional organizations that they sponsor speakers, workshops, or conferences for the benefit of you and your colleagues.

Determine Local Guidelines

You should also determine whether there are—in your school, district, or state—guidelines concerning CBE. You will need to know, for example, whether your school has a model CBE program that you should follow. In addition, some states have legislation affecting CBE programs. You should, of course, be aware of the provisions of any such legislation.

One logical starting point in identifying local CBE guidelines would be your resource person. If you are in a teacher education institution, your resource person should be aware of any state guidelines affecting the implementation of CBE. If you are in a staff development program, your resource person will likely know of institutional or district policy regarding CBE. If the resource person is not familiar with such guidelines, he/she can help you identify other sources to contact.

Contact Existing CBE Programs

Another excellent way in which to gain the knowledge and experience you need is to visit existing exemplary CBE programs within your own region. You can thus profit from the experience of others who are actually involved in CBE. Especially profitable would be to locate a teacher in your own occupational specialty who offers a CBE program. Your state department of education should be able to help you identify such programs.

You could, first of all, simply talk to other instructors involved in CBE about their experiences with CBE. How was their CBE program set up? How does it function? What problems have they encountered in implementing and managing the program? What advice can they give you to help you avoid possible difficulties?

You might also observe one or more CBE programs in operation. Best of all would be to observe a CBE program in your own occupational area. As you observe the program, you should look for evidence of the essential elements and facilitating characteristics of CBE.

You could examine the instructional materials (e.g., modules, learning guides, media, programmed materials) that students use. You could observe how the daily routines of the program are managed by the instructor—perhaps with the help of students, aides, or volunteers. You could observe students participating in learning activities and assessment.

You might want to use a checklist of the elements and characteristics of CBE to structure your observation. Such a checklist is provided in sample 3.

Finally, you might actually participate as a student in an exemplary CBE program. This would give you an excellent opportunity to experience firsthand the "feel" of CBE from the student's point of view.

Using student instructional materials yourself, you may be able to see the need for clearly written, well-structured directions and activities. As you use the resource center and other physical facilities, you can gain some understanding of how your own facilities could be organized. Going through a learning experience may also help you become more aware of the changed roles of student and teacher in CBE programs.

Keep Up-to-Date

Last of all, you need to ensure that you keep up-to-date in the area of CBE. CBE is a relatively new concept, just now coming into its own, just beginning to be implemented on a large scale. As educators gain more experience in setting up and operating CBE programs, new concerns and new solutions may appear. You will want to ensure that you keep abreast of such new developments in CBE—for your students' sake and for your own.

Thus, you will need to stay current with the literature on CBE. You can do this by reviewing professional journals and periodicals and new book acquisitions at your local libraries. You can attend lectures, workshops, or conferences sponsored, again, by your school, district, or related professional organization. You might consider joining relevant professional organizations, if you do not belong to them already.

It would also be very helpful, as you strive to keep up-to-date concerning CBE, to maintain contact with other professional colleagues who are involved with CBE programs. They may have new experiences, ideas, techniques, or materials to share with you. And, as you become more involved in CBE, you can share your own knowledge and experience with others.

SAMPLE 3

CBE PROGRAM EVALUATION CHECKLIST

Directions: Indicate the extent to which the program being evaluated has implemented each of the following essential elements and facilitating characteristics by checking the appropriate box under the Level of Implementation heading.

Program _____

Name _____

Date _____

LEVEL OF IMPLEMENTATION

	Poor	Fair	Good	Excellent
Essential Elements				
1. Competencies to be achieved by the students have been:				
a. carefully identified	☐	☐	☐	☐
b. verified by local experts	☐	☐	☐	☐
c. made public	☐	☐	☐	☐
2. Criteria for assessing each of the verified competencies have been:				
a. derived from occupational standards	☐	☐	☐	☐
b. explicitly stated along with conditions	☐	☐	☐	☐
c. made public	☐	☐	☐	☐
3. The instructional program provides for the:				
a. individual development of each competency	☐	☐	☐	☐
b. individual assessment of each competency	☐	☐	☐	☐
4. Assessment of the students' competence:				
a. takes knowledge into account	☐	☐	☐	☐
b. takes attitudes into account	☐	☐	☐	☐
c. requires actual performance of the competency as the major source of evidence	☐	☐	☐	☐
5. Students progress through the program:				
a. at their own rate	☐	☐	☐	☐
b. by demonstrating their competence	☐	☐	☐	☐
Facilitating Characteristics				
6. Instruction is individualized to the maximum extent possible	☐	☐	☐	☐
7. Learning experiences are guided by frequent feedback	☐	☐	☐	☐

	Poor	Fair	Good	Excellent
8. Emphasis is upon students' achievement of exit requirements	☐	☐	☐	☐
9. Instruction is individually paced rather than time-based	☐	☐	☐	☐
10. Instruction is field-centered, using realistic work situations and actual on-the-job experiences	☐	☐	☐	☐
11. Instructional materials:				
a. support individualization (e.g., modules or learning guides)	☐	☐	☐	☐
b. are mediated	☐	☐	☐	☐
c. are flexible, with both required and optional learning activities provided	☐	☐	☐	☐
12. The instructional program as a whole is carefully planned and systematic—evaluation data is used for program improvement	☐	☐	☐	☐

Optional Activity 2

To stay abreast of current information on CBE activities nationwide, as well as announcements concerning available instructional materials and competency lists, you may wish to subscribe to the newsletter, *Open Entries*, or to join organizations devoted to the furtherance of CBE.

Activity 3

As an aid in reviewing your attitudes and knowledge concerning CBE, complete the following inventory. Read each of the items listed, and place an X in the appropriate box to indicate your feelings concerning that item, using the following scale:

1 = Feel extremely uncomfortable
2 = Feel uncomfortable
3 = Undecided
4 = Feel comfortable
5 = Feel extremely comfortable

READINESS INVENTORY

	1	2	3	4	5
How comfortable would you feel if a learner:					
1. began learning at a time of his/her choosing	☐	☐	☐	☐	☐
2. completed learning activities according to his/her own schedule	☐	☐	☐	☐	☐
3. worked at his/her own pace	☐	☐	☐	☐	☐
4. studied what he/she needed to study	☐	☐	☐	☐	☐
5. participated actively in setting his/her own objectives	☐	☐	☐	☐	☐
6. learned in a field-based (on-the-job) environment	☐	☐	☐	☐	☐
7. accepted more responsibility for learning	☐	☐	☐	☐	☐
8. took advantage of his/her personal learning style	☐	☐	☐	☐	☐
9. actively participated in the evaluation of his/her progress	☐	☐	☐	☐	☐
How comfortable would you feel if a learner did NOT:					
10. study in the same manner as other students in the same program	☐	☐	☐	☐	☐
11. use the same material for learning as other students	☐	☐	☐	☐	☐
12. use the same learning experiences as others	☐	☐	☐	☐	☐
13. progress at the same rate as others in the class	☐	☐	☐	☐	☐
How comfortable would you feel if you, as an instructor:					
14. taught the same subject in a different way from one term to the next	☐	☐	☐	☐	☐
15. used different learning activities for different students	☐	☐	☐	☐	☐
16. worked with students individually	☐	☐	☐	☐	☐
17. assigned out-of-class activities in exchange for classroom attendance	☐	☐	☐	☐	☐

SOURCE: Adapted from a list by James Pollard, Spokane Community College

	1	2	3	4	5
18. used media to present information	☐	☐	☐	☐	☐
19. assisted students in self-evaluation rather than red-penciling written assignments yourself	☐	☐	☐	☐	☐
20. asked a learner "How do you feel you did?" rather than simply assigning a letter grade	☐	☐	☐	☐	☐
21. held learners accountable for successfully performing specific skills rather than for normative scores on paper-and-pencil tests	☐	☐	☐	☐	☐
22. expected the learner to accept major responsibility for learning	☐	☐	☐	☐	☐
23. used knowledgeable and experienced students to instruct other students	☐	☐	☐	☐	☐
24. allowed learners to choose from a list of program competencies rather than having them work to complete predetermined objectives	☐	☐	☐	☐	☐
25. prepared learning plans that assisted students in their learning rather than lesson plans that assisted you in your teaching	☐	☐	☐	☐	☐
26. were available when students needed you rather than requiring students to be in attendance when you were scheduled to teach	☐	☐	☐	☐	☐
27. used student input to set goals for professional improvement	☐	☐	☐	☐	☐
How comfortable would you feel if you, as an instructor, did NOT:					
28. rely primarily on lectures as a means of transmitting information to students	☐	☐	☐	☐	☐
29. expect every student in a class to achieve the same skills	☐	☐	☐	☐	☐
30. expect all students to achieve at the same rate	☐	☐	☐	☐	☐

Level of Performance: Ideally, for each item, you should have placed an X in the *4* or *5* box. However, if you were honest, some of your items probably received lower ratings. Make a note of those items that you rated *1*, *2*, or *3*—these are the areas in which you need greater knowledge, skills or experience before you can successfully implement CBE. Then go on to complete the next activity, in which you can develop a plan to gain the greater knowledge, skills, and experience that you need.

Activity 4

By completing the inventory in the previous activity, you have reviewed some of your attitudes and knowledge concerning CBE. As you reviewed your completed ratings, you should have identified specific areas in which you need greater knowledge, skills, and experience.

Now, use the worksheet below to develop a plan to gain the specific knowledge, skills, and experience you need, as indicated by the results of your inventory. In the column labeled "The Need," list your own specific needs as indicated by your inventory. Then, in the column labeled "How to Fill It," list the specific means you will use to meet those needs.

It is very important that you be **specific** as you develop your plan. You should indicate the particular experience you plan to gain (e.g., knowledge of specific methods used to individualize instruction in a CBE program). Then, wherever possible, you should indicate exactly how you could meet each need (e.g., attending the workshop "Individualizing Instruction: A CBE Approach," offered by Local State University, June 1, 1985).

PLANNING WORKSHEET

The Need	How to Fill It

The Need	How to Fill It

After you have developed your plan to gain the greater knowledge, skills, and experience you need to operate a CBE program, use the Planning Worksheet Checklist, p. 31, to evaluate your work.

PLANNING WORKSHEET CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
The plan to gain greater knowledge, skills, and experience:				
1. included the specific knowledge, skills, and experience needed, as indicated by the results of the inventory	☐	☐	☐	☐
2. provided for gaining the needed knowledge, skills, and experience by:				
a. reading reliable, up-to-date references	☐	☐	☐	☐
b. participating in courses, workshops, or conferences	☐	☐	☐	☐
c. identifying local or state guidelines concerning CBE	☐	☐	☐	☐
d. consulting teachers who are involved in implementing CBE programs	☐	☐	☐	☐
e. visiting and observing fully operational CBE programs	☐	☐	☐	☐
f. participating as a student in an exemplary CBE program	☐	☐	☐	☐
g. arranging to keep up-to-date concerning CBE	☐	☐	☐	☐
3. identified specific, appropriate activities for gaining all needed knowledge, skills, and experience	☐	☐	☐	☐
4. was realistic and feasible in application	☐	☐	☐	☐

Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, review the material in the information sheet, Getting Ready to Operate a CBE Program, pp. 18–26, revise your plan accordingly, or check with your resource person if necessary.

NOTES

Learning Experience III

OVERVIEW

Enabling Objective

After completing the required reading, critique the performance of the teachers in given case studies in orienting the school and community to CBE.

Activity 1

You will be reading the information sheet, Orienting the School and Community to CBE, pp. 35–43.

Optional Activity 2

You may wish to interview a vocational teacher in your service area who is experienced in orienting others to CBE.

Optional Activity 3

You may wish to interview an administrator who has had experience in operating a CBE program.

Activity 4

You will be reading the Case Studies, pp. 45–47, and critiquing the performance of the teachers described.

Feedback 5

You will be evaluating your competency in critiquing the teacher's performance in orienting the school and community to CBE by comparing your completed critiques with the Model Critiques, pp. 49–50.

Activity 1

For information on the need to orient school and community groups to the CBE program, the types of information these groups need to have, and the methods you can use to orient them to CBE, read the following information sheet.

ORIENTING THE SCHOOL AND COMMUNITY TO CBE

In order for you to install and conduct competency-based education (CBE) in your classes, you, of course, need to have a firm grasp of the concept. But to conduct a successful, effective, and smooth-running program often involves more than **your** understanding and acceptance of the concept. There are other individuals and groups in the school and community who need and want to be informed about what is going on—and whose support will help ensure an effective CBE program.

Thus, you may need to orient others in your school or community to CBE. Your role in orientation will depend on your own situation. If you are pioneering CBE in your institution, you may be the only person available who **can** orient others to CBE. On the other hand, if your administration decides to switch over to CBE, they will probably orient **you** to the concept. You will need to use your judgment in determining what role you should play in orienting others to CBE.

When orientation is your responsibility, however, you need first to identify **who** needs to be oriented: What individuals and groups need to be kept informed? Whose support is required for the program to succeed? Second, you need to identify **what information** each group needs in order to understand and support your efforts. And finally, you need to identify and take advantage of various **opportunities** to orient these people to what you are doing or would like to do in terms of CBE.

Generally, such school and community groups as staff and administrators in your own school and in other schools and agencies; parents; members of civic and service organizations; and persons representing business, industry, and labor will need to be kept informed. But the types of information you need to provide to any group—and the amount of responsibility you will have for providing it—will vary depending on a number of factors, such as the following:

- Are you explaining a program that exists in your institution or attempting to convince people that the idea of installing one in the future is worth considering?
- If you are involved in a CBE program, is it a **new** program, or has it existed in your institution for some time?
- If the CBE program is new, who initiated its installation? The administration? Your vocational-technical department? You?
- What key groups in your institution and community need to be kept informed?
- How much do people in the institution and community already know about the vocational-technical program? About CBE?
- How much support exists for the vocational-technical program? For CBE?

Whatever your situation, you will want to present the proposed or existing CBE program in the best possible manner and to make your case convincing, interesting, and effective. This is true whether you are simply providing information or keeping people up-to-date on what you are doing.

As indicated earlier, you need to have a thorough understanding of CBE yourself to be able to explain it to others. In addition, however, you should be familiar with a variety of techniques and approaches for presenting information and maintaining good school-community relations.[1]

1. To gain skill in techniques for promoting and maintaining good school-community relations, you may wish to refer to appropriate modules in Category G: School-Community Relations.

Depending on the situation, you might want to prepare a bulletin board or exhibit. Or you might choose to give a presentation involving the use of overhead transparencies, slides, or the chalkboard. You might develop a brochure or a news release. Or you might organize an open house.

Opportunities to orient school and community groups will not, of course, always involve elaborate presentations or promotional techniques. In many cases, informal conversations (in person or over the telephone) will be all that is necessary to provide the needed information. But you should be able to make more formal presentations if the need or opportunity arises.

Assuming that you are either involved in a CBE program or about to become involved, what opportunities exist for you to orient others and gain their understanding and support? What sorts of information should you provide to various groups?

Orienting Other Staff

You may find many opportunities within your own institution for orienting other staff members. You may be able to schedule some time on faculty meeting agendas for talking about CBE to the group as a whole. Department meetings provide an excellent opportunity to discuss CBE in terms of occupational area needs and concerns. And the staff lounge is a fine place to talk to other teachers in a more informal and individual way.

To ensure that most staff members will hear about CBE, you may want to include an article in the school or college paper or bulletin. You will also want to remain alert to other orientation opportunities specific to your own facility, such as an open house, fund-raising events, and special activities.

The information about CBE that you provide to staff members will need to address their specific concerns. And, as mentioned earlier, it will vary depending on the situation at your institution.

If CBE is new to them, staff members will want to know in what ways it will affect their instructional planning time and effort. They will want to know how they will be able to manage and guide the progress of students who are working with different materials at varying rates.

You will need to very simply and directly address these points. You may, for example, discuss how the extra time spent initially in planning a program with a student is well repaid when the teacher is free later to work individually with the student.

You can explain that, as the student proceeds through his her program, the teacher will not be called upon so much to dispense new information daily but, instead, will keep track of the student's progress and help the student to progress as rapidly as possible.

You can also explain that, yes, the teacher may have to spend much time—in the beginning—in developing or selecting record-keeping forms and charts and progress report forms. However, as the program becomes fully operational, this kind of activity is much less called for. The appropriate forms will have already been drafted and ready for general use by the instructor and all the students.

Student evaluation and grading will also likely be of concern to teachers. For example, some teachers may not know what a performance test is, how it differs from testing procedures already being used, and how the teacher's role in the testing procedure is changed.

You can indicate that evaluation is based on a student's ability to actually perform a skill or set of skills and not simply on passing written tests. You can describe how performance is assessed based on explicitly stated criteria, and you can explain that both student and teacher know—in advance—what those criteria are.

You can also note that, ideally, evaluation of performance is not tied to grades. Students either perform satisfactorily or not. If not, they recycle—repeating activities and practicing the skill until they can perform it successfully.

Orienting Administrators

An excellent way to discuss CBE with one or two administrators is to arrange for an informal private meeting. However, if you need to reach more administrators within a tighter time frame, you may wish to arrange some time on the agenda of an administrator's workshop or an in-school meeting of your own

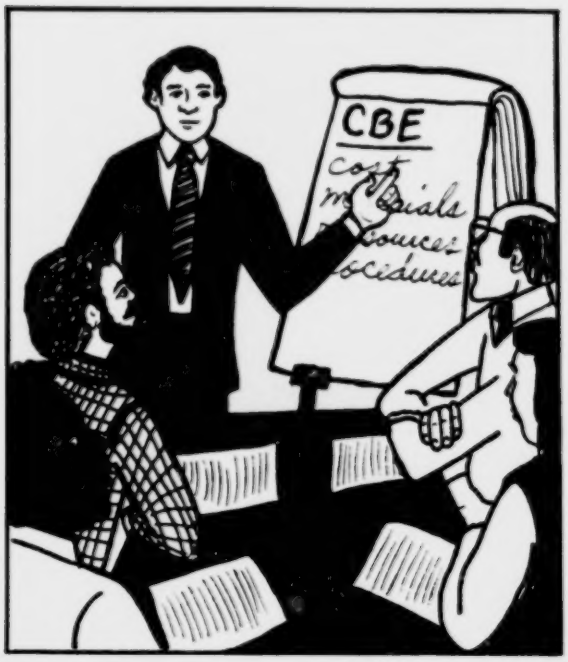
administrative staff. You may also want to provide administrators with articles on CBE or with examples of CBE instructional materials.

Your orientation of administrators, just as that of other staff members, will need to touch upon their particular concerns. Administrators, quite naturally, will want to hear about how CBE will affect accountability and cost. That is, they will want proof that the results of the program and job success of the students will be worth the resources expended.

Thus, you should be prepared to discuss how you plan to acquire CBE instructional materials and how much this might cost. You may need to explain the need for a resource center in your facility and how this can be installed. And you can explain that, while CBE cannot predict 100 percent student success in life or job roles, it **does** respond to updating of changing job skills and that, therefore, it may be well worth the initial cost of materials and resources.

If the program is to be organized on an open-entry open-exit basis, administrators will be interested in hearing about ways to manage such a system. You can explain how this type of system makes it possible for every available work station in your facility to be utilized to full capacity because, as soon as one student leaves the program, another can be enrolled and start work.

In addition, you can discuss the fact that, once management procedures and forms are decided upon and drafted and students are oriented to the process, things begin to run smoothly with normal monitoring.



Administrators may also need to know about the need for alternative grading procedures. Traditional letter grades have little meaning in a CBE program. One final course grade does not reflect a student's performance and progress in the program. In a CBE program, the instructor knows **exactly** which occupational skills each student has. Why shouldn't this information be shared with others?

In a CBE program, it is more appropriate to report the different competencies that each student mastered. This would be valuable information for employers, for example. They would know exactly what skills their beginning workers have. And students could easily determine their qualifications for jobs they see listed. A report of competencies mastered would be, in many respects, the ideal.

Implementing this ideal procedure may not always be a simple matter. Existing graduation requirements—written in terms of courses and letter grades—may initially prevail. However, if you work to ensure that your administration understands and supports CBE and knows your needs as you implement your CBE program, you can much improve your chances that these needs will be met.

Orienting Referring Schools and Agencies

Personnel at other schools and government agencies that refer students to your program (such as a feeder school or employment agency) should also be informed about CBE. You may be able to arrange to make a presentation about your CBE program at one of their staff meetings or at a special function.

You might also wish to contact specific individuals, such as guidance personnel in the referring schools. Much of the counseling of students regarding their training programs rests with these persons.

The administrators, teachers, and guidance personnel at these referring schools and agencies will have their own special questions and concerns about CBE. For one thing, they will want to feel that all the transfer or referral decisions made are justified.

For instance, the Bureau of Employment Services will want to know that the people they refer to your program will be getting the kind of training they need. A private employment agency may want to be assured that referring people to your CBE facility for training will in no way adversely affect the agency's reputation.

A referring school will want to be sure that sending students to a CBE program will result in successful training and high student interest. They may also want to work out with you articulation agreements, so the skills students learn in their school will

be given proper credit when the students enter the higher-level program.

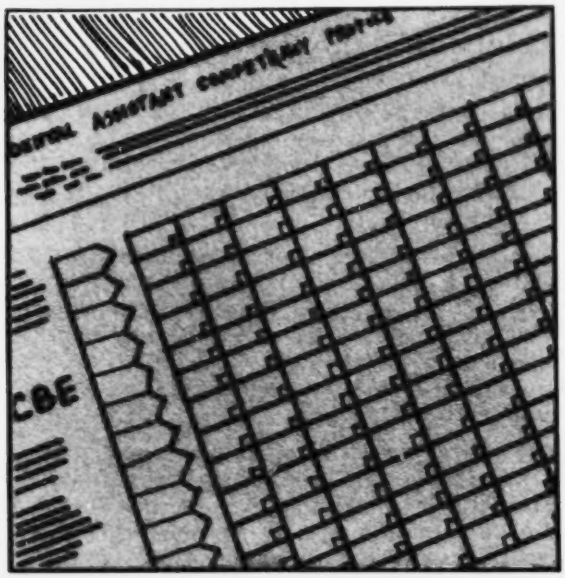
The referring schools and agencies, in other words, need to be assured that they can encourage suitable students to enter your program and maintain their own credibility.

You can begin by explaining that a student entering a CBE program meets initially with a resource person (or instructor) in an interview session to plan a program that will best fit his/her present level of skill, as well as his/her occupational and personal needs and goals. You can describe how each entering student's program is tailor-made.

For example, the student with no on-the-job experience at all begins with basic learning objectives and learning experiences. The student with some summer work experience may be able to "test out" of basic learning experiences and begin work on more intermediate competencies. The student who has worked in the occupation for two years—and who needs only a few competencies to be eligible for advancement—can enter a CBE program and work only on those competencies.

Staff at employment services will need to be able to interpret the transcripts or records of students who complete your program. You may need to explain how occupational competencies are listed and verified.

A competency profile chart or a competency listing can be extremely helpful in explaining what the competencies for your program are, how a student's program is planned, and what level of skill he/she must reach to successfully complete your program. Details of the rating scale you use will be extremely helpful here.



You may also need to provide information about your CBE program to institutions your students attend for further training after leaving your program. Such institutions may need an explanation of students' competency profiles or ratings and how to translate these into a conventional program structure.

Orienting Parents

Teachers in secondary schools have a special task that may not concern instructors at other levels. They should be sure to keep parents well informed about the vocational program. Opportunities for contact with parents are numerous.

A monthly parent-teachers meeting can provide one opportunity to talk to parents—either formally or informally—about CBE and its effect on their sons and daughters. You can take advantage of this opportunity by arranging in advance with the president or program committee chairperson for some time on the meeting agenda.

A schoolwide, departmental, or classroom open house also can provide an ideal opportunity to orient parents to the way in which students are being prepared for employment through CBE programs. More informal contact with parents may be arranged at school social events or through individual phone conversations, in-school conferences, or home visits.

Whatever approach you use in orienting parents, you will need to address some key concerns. Parents will want to know how the CBE program will affect students' opportunities for employment and their daily routine.

In your orientation, then, you can explain that CBE is based on competencies verified as necessary on the job. Therefore, each student can be specifically and thoroughly prepared for the occupational area he/she wishes to enter. You can explain how learning activities are planned and sequenced to be time-variable and to enable a student to actually **perform** job skills competently.

You can describe how students go through a typical day in a CBE program—how they work at varying rates, using a variety of materials and media to fit their individualized programs, using the resource center as well as the laboratory, and going out into the field when specific learning experiences require them to do so.

The idea of a time-variable program, in which students can work at their own rates and complete the program at different times, may be quite new to parents. You will need to explain this carefully. Otherwise, parents may become anxious when their son or daughter takes a longer time than another student to progress through the same program.

Because of the administrative complications involved, most secondary school vocational programs are not, at present, organized on a true open-entry/open-exit basis. However, if your secondary program is so organized, it will be very important for you to discuss this with parents.

You need to be sure they understand that students may enter the program at different times in the school year and exit from the program whenever they have completed the work—not necessarily in February or June. The idea of students' being able to enter the job market at any time in the year may appeal to parents, but they may have concerns about other aspects of the self-paced approach to instruction.

You may also wish to help parents understand how CBE can aid in the maturation process by requiring students to take more responsibility for their own learning. You could do this by describing the role of the resource person as one who helps the student manage his/her own instruction and who assesses the student on a performance basis when the student shows him/herself ready to be assessed.

In other words, you can describe how a student in a CBE program becomes aware of his/her progress, need for assistance, and readiness to demonstrate competence.

Orienting Civic and Service Organizations

By orienting local affiliations of national organizations in your community, as well as some special-interest groups, you can respond to several civic and service organization needs. These organizations, whatever their particular concerns, are all interested in the community in which they operate or provide service. They are therefore also interested in what is happening in the schools and need to be kept informed, for a variety of reasons, of changes occurring in teacher's and students' roles and in instruction.

You may find local affiliations of larger national organizations, such as the following:

- Chamber of Commerce
- Lions
- Elks
- Kiwanis
- League of Women Voters
- Sierra Club
- B'nai B'rith

And you may find special-interest groups, such as the following:

- Local historical society
- Environmental protection group
- Settlement house
- Hospital association
- Library association
- Crafts club
- Theater group
- Halfway house

One of your primary reasons for orienting civic and service organizations to CBE may well be a purely informational one. These community groups may need to know about the implementation of CBE simply because it is something that is going on in the schools.

You may need to orient these groups simply to avoid misunderstanding, apprehension, and suspicion. They need to know about new and innovative programs so that they will understand and appreciate the school's continuing efforts to serve the community.

The members of these organizations may need to know, for example, why they are seeing vocational students out of class and "about town." You may need to explain how, in CBE, field experience may be a part of a student's program. Learning activities may have to take place in a hospital or a hair styling salon or a service facility.

Organization members may also want to know how they can serve students in a CBE program. A forestry student, for example, may need to volunteer for a day at the local environmental protection group office to complete one of his her learning experiences. A lighting technician may need to spend time with a little theatre lighting crew during an actual production as part of one learning activity.

If yours is a postsecondary or adult education program, some of the people you talk to may be very interested in enrolling. The CBE approach can permit adult learners to select just those specific competencies they would like to learn, without having to take a complete course of study.

The neighborhood pharmacist, for example, may want to learn the typing skills needed to enable him to type labels for prescriptions. The local sculptor might be eager to gain skill in brazing sheet metals. You may well be able to accommodate people who have such special needs and interests in a CBE program because you can construct learning experiences on the small building blocks of occupational competencies.

Orienting Business, Industry, and Labor

Opportunities for orienting business, industry, and labor to CBE are abundant, and this orientation is essential to the complete effectiveness of your program. Opportunities can be found in meetings with your occupational advisory committee, which is made up of representatives from local business and industry. You can find further opportunities in meetings with labor union officials, employment agency personnel, business leaders in the community, factory managers, and trade organization members.

It would be very wise to prepare descriptive materials, such as a chart of competencies, to help you in your presentations. You may find these groups more accepting of the principles and logic of CBE than some traditional educators.

Your advisory committee provides you with information about labor needs in the community and reviews the competencies needed in your specific occupational area. Therefore, they will need to have a firm grasp of how the CBE program is structured and what it is expected to produce.

Also, since students may join unions after leaving school, labor union officials need to know in what ways CBE will prepare students for the labor market and for successful placement in jobs. The union will want to know how CBE can more effectively serve its new membership. Labor unions may also be greatly interested in the CBE approach as it can be applied to their apprentice training programs.

Contacts made with business leaders in the community will enable you to discuss their role as valuable resources in the CBE program. A student in a personnel management program may well need to work within a particular business for a period of time to practice specific competencies. Another student in an entrepreneurship program may need to interview a well-known business entrepreneur in the community.

Plant managers should be similarly oriented. They need to understand how their future employees are being trained and how they can serve the CBE program. For example, the manager of a textiles plant needs to know that students in a fashion design program are being trained to identify the suitability of fabric designs for various markets. And the school may need the assistance of plant supervisors in assessing students' on-the-job performance of occupational competencies.

Personnel officers in business, industry, and other agencies should understand the methods you use in your program to assess students and to verify their occupational skills. If you have developed a program transcript showing the rating the student has achieved on each competency (and, by the way, such a transcript is a valuable tool), employers need to know to **ask** prospective employees for it.

They should also know how to interpret the document. You might even lay the groundwork for getting their cooperation in adding new ratings to the occupational transcript as the new employee attains additional skills on the job. Admittedly, informing and working with employers is a long-term and continual task, but you must make a start.

You may also want to orient trade organization members to CBE. These organizations of managers and workers, active in many occupational service areas, need to know about CBE program activities that touch on their particular areas simply to keep well informed. Your students may be required to contact some of these organizations—again, as part of their CBE field experiences. Some examples of organizations related to vocational-technical service areas are the following:

- Restaurant Association
- Automotive Service Council
- Printing Industry
- Cattlemen's Association
- Society of Engineers
- Association of Retail Lumber Dealers
- Association of Beauticians
- Consumer Loan Association

Your opportunities for contact with these organizations can range from simple phone conversations, to scheduled appointments with organization officials, to attendance at trade association exhibitions and special shows. Whatever method of contact you choose, you can orient these people so that they will know how your students are being trained in their own particular trades and so that they can respect the purposes and structure of the CBE program.

Orienting Prospective Students

You will need to discuss CBE with prospective students. They need to understand how the CBE program may be different from what they are used to and how their own role in learning changes in a CBE program. They will want to know the advantages of enrolling in a CBE program.

One advantage of CBE that you should explain to students is their own increased responsibility. In CBE, students have control over what they learn. Students identify the career goal for which they are training. They then have the chance to take more responsibility in selecting and completing their learning activities.

They are able to choose, for example, from among different learning materials and activities. They can proceed at their own pace. They might work alone, in a small group, or in a large group. Students daily make many of their own decisions about how to learn in a CBE program.

Along with increased responsibility, students have increased opportunities. By choosing their own learning materials, they can learn information in the way they prefer. Students who read well can choose print materials. Those who learn better by listening might choose an audiotape covering the same information. Students who need concrete experiences can participate in hands-on activities.

Furthermore, if the program uses an open-entry/open-exit system, students may be able to finish their program and leave—earlier than is possible in a conventional program.

Most important for students in CBE is the opportunity to succeed. In other programs, students study a topic until the test, get a passing or failing grade, and go on to the next topic. In CBE, students choose materials and activities for each learning objective and work until they can successfully demonstrate competence in that objective. Students can, within reason, continue until they have learned.

Orienting students to CBE can become a standard part of your program promotion activities. It's likely that you already promote your program with prospective students. Whatever means you normally use for promotion, you can use to describe CBE and its advantages for students. A new brochure, a group presentation, a bulletin board, a simulation during an open house—students can be oriented to CBE in many ways.

Responding to Challenges about CBE

As you orient others to CBE, you will undoubtedly receive questions, comments, and even criticisms about the competency-based approach. You will likely find that many of these comments are similar. The reservations that people have about CBE tend to center around the same issues. Let's look at some of these issues—and possible responses you can make when confronted with them.

"CBE does not have an adequate research base." It is true that as yet there are few research findings that show that CBE programs, as a whole, better promote learning than do conventional vocational-technical programs. There is no conclusive link as yet between CBE and the desired outcomes of vocational-technical education: student success in the world of work. Nor, for that matter, is there any such conclusive link between **conventional** programs and these desired outcomes.

Educational research does, however, support many of the characteristics of CBE as learning enhancers. Research has shown that learning is promoted in many individuals (i.e., students progress faster and complete earlier) by such CBE elements as the following:

- Use of specifically stated performance objectives
- Provision of frequent feedback to learners
- Increased individualization of instruction
- Use of incentives to motivate the learner (e.g., time-variable progression through the program based upon the demonstration of competencies)

Furthermore, standard program evaluation procedures have shown, in many instances, that individual CBE programs are providing effective occupational instruction. Subjective data indicate that CBE is perceived by many as an effective means of providing training for the world of work. Teachers, students, and employers report their satisfaction. Employers often feel that the amount of **responsibility** assumed by students in CBE programs provides them with a skill that is valuable in the world of work.

"Sum of the parts may not equal the whole." Some people feel that there is danger in the fact that CBE breaks each occupation into its component parts, or individual competencies. Their fear is that, when you put the parts back together, they won't add up to the whole. The ability of students to demonstrate competence in specific tasks, they claim, does not guarantee future success in the world of work.

One response to such a criticism could be that it is impossible to look at any occupation as a whole without breaking it down into its parts. In CBE programs, these parts are very carefully identified and categorized. Then, the entire program is publicly laid out, so that all can see how one competency builds on another.

Students in CBE programs have the opportunity to move toward competence in the whole occupation through the step-by-step acquisition of the essential subparts. Students then have many opportunities to put all the pieces together under the supervision of a master worker: you or an on-the-job supervisor for students' field-based experiences.

"Programs are not humanistic." Part of all education today involves attending to the affective needs and development of students. Some people, unfortunately, see CBE as a cold, mechanistic approach that ignores the affective domain and deals only with the cognitive and psychomotor aspects of learning.

Others imply that, in CBE programs, there are fewer chances for students to explore, express, and comprehend their feelings. Some people question whether CBE comes to grips adequately with the humanistic and higher-level cognitive needs of students.

Supporters of CBE argue strongly that competency-based programs need not be dehumanizing, mechanistic, or restrictive. Objectives in the affective domain may be hard to measure, but this is true regardless of the means of instruction. Countless CBE programs have identified affective competencies and provide their students with instruction geared to those competencies.

Furthermore, students in CBE programs often have **more** opportunities for interpersonal contacts. They often have **more** chances to explore, express, and comprehend their feelings—and the feelings of others, as well. Perhaps, as with conventional vocational-technical programs, CBE programs will be as humane as the persons who are operating them.

"**Instructional management is more difficult.**" Managing a CBE program is admittedly different from managing instruction in a conventional program. You have to coordinate different activities occurring at the same time. Students have to be kept track of—they might be in your lab or shop, in a learning center, or off on a field-based experience, for example.

Students will be learning different things, each requiring different materials, resources, and activities. If careful records are not kept of student progress, it is difficult to know who has learned what. All in all, delivering lecture demonstrations to the entire class and then testing their knowledge periodically is easier to manage.

Consider, however, what you gain by attending to all these individual management tasks. Your students will have the chance to develop a sense of responsibility. They can learn at their own rate. One student, who picks up information quickly, can go on to another activity. Another student, who needs more time to absorb the same information, is allowed to spend the time needed. Students can choose from a variety of materials, activities, and grouping arrangements to learn in the way they prefer or need.

In addition, as students become more responsible, they can assume some of the duties related to managing instruction. They can make their own choices about how and when and with whom to learn. That is, they can manage some of their own learning.

Furthermore, managing instruction in a CBE program may look more difficult than it actually is. Things often appear more difficult when they are new and unfamiliar. It is likely that, as you gain experience in managing a CBE program, it will be less difficult than you thought.

"**CBE programs may be costly.**" Some data are available on the costs of operating CBE programs. Two major types of costs are involved, however: developmental (or start-up) costs and operational costs.

As with most other new programs, there are initial costs involved. Personnel must be trained. They must also be provided with the time needed for such activities as planning the program, developing or securing materials, and working out the management procedures.

However, after a developmental stage of three or more years, the cost of operating a CBE program seems to be comparable to operating existing programs.

Granted, more expensive materials and equipment, more costly assessment procedures, and more record-keeping devices are sometimes involved. However, there are offsetting savings through greater use of self-contained instructional materials, use of unsupervised peer-group study sessions, and the elimination of many typical class meetings. Also, you can often make fuller use of your facilities as students use them at their own pace.

"**There's a shortage of high-quality software.**" Unfortunately, as with almost any other educational movement, some people turned out hastily prepared, poorly developed, and untested CBE materials. Others placed new covers with different titles on old materials. It can be costly, in time and money, to produce high-quality, research-based, tested materials. Securing appropriate instructional materials for a CBE program often was not easy.

However, high-quality software does now exist. Competency-based student instructional materials—produced to high standards of quality—are available from commercial publishers, educational research agencies, materials development consortiums, individual teachers, and many other sources. Several standardized learning package formats have been developed and are now widely accepted and used.

Although there may yet be much to do, much is being done. More and better materials are appearing almost daily.

Optional Activity 2

You may wish to arrange through your resource person to meet with and interview a teacher in your vocational-technical service area who has experience in orienting people in the school or community to CBE. You could structure the interview around such key questions as the following:

- In order to implement a CBE program or operate one effectively, what groups in the school or community need to be informed about and supportive of the CBE program?
- What types of questions or concerns arise most frequently in discussions with various groups concerning the CBE program? How did you answer these questions?
- What methods do you use in orienting others to CBE? Informal conversations? Formal presentations? How successful were these methods in helping you create understanding and support?

Optional Activity 3

You may wish to arrange through your resource person to meet with and interview an administrator who has experience in operating a CBE program. You could structure the interview around such key questions as the following:

- How was the CBE program initiated?
- How were school and community groups oriented to the CBE program?
- What was the role of the instructional staff in providing the necessary orientation or information?
- What administrative questions needed to be addressed before the CBE program could be installed?
- What types of questions about CBE are you most frequently asked by parents and other community members?

Activity 4

The following case studies describe how three vocational teachers approached their responsibilities in orienting school and community groups to CBE. Read each of the case studies and **critique in writing** the performance of the teacher described. Specifically, you should explain (1) the strengths of the teacher's approach, (2) the weaknesses of the teacher's approach, and (3) how the teacher should have treated his/her responsibilities.

CASE STUDIES

Case Study 1:

Bill Bohanan, a retailing instructor at Webster Technical Institute, was feeling pretty pleased with himself. His administrator had received a request for assistance from the personnel director of a local food chain, and Bill had been asked to handle the request.

The personnel director wanted some help in reviewing and evaluating an examination to be used to screen prospective employees. Bill—who had been using a competency-based approach in his classes for the past year—took one look at the test and decided to throw it out and start over.

Bill carefully avoided paper-and-pencil techniques, which the original exam had relied on completely. Instead, he developed an excellent performance test. He based the test on the competencies, performance objectives, and specific criteria established for his own CBE program.

When Bill delivered the test, the personnel director was busy, so he left it with her secretary.

On his way home, Bill stopped for groceries at one of the chain's local stores. While waiting in the check-out line, he got into a conversation with the store manager, who complained about how difficult it was to find competent help.

Bill agreed sympathetically and wondered if he should bring up the new screening test. Oh well, he thought, she'll find out about it eventually.

Case Study 2:

Miss Chavous had spent a busy afternoon talking to employers at prospective training stations for her co-op students. So far, no one had made a definite commitment, but she felt sure she would be successful. The CBE program was functioning beautifully, and her students had never been so involved and motivated.

In talking to each employer, she had described the program in glowing terms. First, she had explained how her students were taking more responsibility for their own learning. She stressed that they were even helping to plan their own programs.

Then, she had discussed her role in CBE—that she functioned as a learning manager rather than as a dispenser of information. Finally, she had explained proudly that her students were having no trouble using her carefully developed CBE modules—due, in part, to her well-stocked learning-resources center.

All in all, she was sure she had made a good impression and that the employers she had spoken to would be eager to provide training stations for students like hers.

Case Study 3:

The instructors who were gathered in the faculty lounge at Intercoastal Community College were more than a little upset. During the previous faculty meeting, the college president had informed them that the institution was going to implement a totally competency-based program.

Workshops and training sessions would be held to orient faculty to the new concept and help with the transition. Outside consultants would be brought in to help run the sessions and to provide concrete advice.

Most of the instructors at the college knew little more about CBE than the name. A few knew enough to hint darkly about increased work loads and complex management problems. Even instructors who were ordinarily open to new and different instructional approaches were apprehensive. They were concerned about making such a drastic change in the teaching-learning environment they were accustomed to.

The only instructor who wasn't concerned was Mr. Wisner, who had been using CBE in his data processing classes for the past six months. His only concern was that it was probably going to be boring sitting through all those workshops and training sessions. It occurred to Mr. Wisner that, if he let his administrator know he'd been using CBE for six months, he might be able to skip the orientation sessions.

But, come to think of it, he might be able to get some help in developing a more complete list of the competencies needed by workers in the occupation. The occupational analysis he'd worked from was somewhat out of date. And, since he'd gotten it from a colleague in another state, he wasn't entirely sure it fit local conditions.

Mr. Wisner gave himself a pat on the back for having recognized a long time ago that CBE was the way to go. Judging by the conversations going on around him, his fellow faculty members had a lot of catching up to do.

NOTES

Feedback 5

Compare your written critiques of the teachers' performance with the model critiques given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

MODEL CRITIQUES

Case Study 1:

Bill Bohanan missed two opportunities to let people in the business community know about CBE in general and his program in particular. As a result, he has been much less help to the food chain (and its store managers) than he realizes. In addition, he may have temporarily closed off an avenue of support and assistance for his CBE program and its graduates.

Bill might have been right. A performance test, based on specific competencies needed by workers on the job, might indeed be what is needed. But what will be the reaction of the personnel director to a test that bears no resemblance whatever to the types of tests she is accustomed to, or to the test given Bill to review and evaluate?

We don't know for sure whether the director knows anything about CBE. If she doesn't, she may well fail to understand (or agree with) Bill's approach and may simply reject the exam. Paper-and-pencil testing is not "bad" by definition. In fact, it's possible that the director is looking for certain characteristics in employees that could best be identified through this type of test, at least in part.

In any case, Bill should have met with the director (preferably **before** he revised the test) to explain the rationale for performance testing. He should have pointed out the relationship between the skills that the test requires employees to perform and the competencies needed on the job.

Bill also should have used this opportunity to explain his CBE program, as well as its potential for preparing more competent employees. This sort of orientation would not only have been helpful to the director, but it could have resulted in increased field-experience and placement opportunities for Bill's students as well.

Bill also missed an opportunity to talk to the store manager, in an informal way, about the manager's needs and the way in which Bill's CBE program attempts to meet those needs.

Just hearing about a new screening test (from Bill or anyone else) might not have meant much to the store manager. However, hearing that a particular teacher in a particular program in a particular school was geared up to train students in the skills needed by her employees would no doubt have been of great interest to her.

By chatting with the manager about the CBE program and the new screening test, Bill might, in fact, have gotten some good suggestions about the criteria that should be used to measure performance. In addition, he might have helped to ensure that he could look forward to the store manager's support of both his program and its graduates in the future.

Case Study 2:

Miss Chavous is obviously a highly motivated, organized, and energetic teacher who appears to be using CBE effectively. Unfortunately, the employers she contacted may never get a chance to see how well-prepared her students are in the basic skills of the occupation.

Apparently, Miss Chavous told the employers everything about the CBE program **except** what they really needed to know: In what competencies are students being trained? What level of skill are students expected to reach? In what ways are students in her CBE program better prepared to function on the job?

In other words, Miss Chavous gave the employers **accurate,** but not particularly **relevant,** information about CBE. In addition, her comments about the fact that her students take more responsibility for their own learning, help to plan their own programs, and so on, may have had a different effect on her listeners than she planned.

Since Miss Chavous did not define *competency-based* or discuss how the competencies were identified, the employers may have missed the point she

was trying to make. They may not have realized that such students tend to make more mature, responsible workers. In fact, they might have gotten the mistaken impression that students in a CBE program can blindly decide, on their own, what they need to know and what skills are necessary for success in the occupation.

Before she visits another prospective training station, Miss Chavous needs to think more carefully about the types of information concerning CBE that would address the specific concerns of her audience—in this case, employers.

Case Study 3:

Mr. Wisner recognized a good thing when he saw it. Unfortunately, it never occurred to him that other people might benefit from his experience or that he himself might do a better job with CBE if he had support and input from others.

Having decided to make a major change in his instructional approach, Mr. Wisner really should have explained to the administration what he was going to do and why. Had he done so, the administration might have decided earlier to install CBE.

Furthermore, they could then have made use of Mr. Wisner's knowledge and experience in planning the installation of CBE at the college. He could have been asked to give presentations at faculty meetings or to orient other instructors and members of the community to the concept and how it operates.

Mr. Wisner could also have helped to plan the workshops and training sessions. For example, he might have been able to help identify the specific conditions and constraints at this particular community college that would need to be considered in trying to implement CBE.

Whether asked to do so or not, Mr. Wisner could and should have informed his fellow instructors about CBE and why he was using it. He seems to be convinced that it is an excellent way to train workers in the skills of the occupation. This is not information that he should have kept to himself.

Since there is little support for or understanding of CBE among the other faculty, Mr. Wisner would have needed to explain the basic concepts carefully. He could also have used his own successful experiences in using CBE to ease some of their concerns.

For example, he could have shared with them his solutions to various management and record-keeping problems. He could have described the techniques he has used in developing CBE materials, orienting students to the concept, devising specific performance objectives and criteria, and so on.

By informing others about his CBE program, Mr. Wisner could also have received some help himself. For example, it seems that he has **not** bothered to orient his occupational advisory committee or other local employers to his CBE program. Had he done so, members of this group could have helped in reviewing and updating the competency list.

By explaining about CBE to this group, he might have gotten other help in implementing his program as well. He might have opened up more opportunities for field experiences or job placement for his students, for instance.

Finally, had Mr. Wisner been a little more willing to talk about what he was doing, he might have gotten some suggestions about how he could do some things better. He should not, for example, have based his brand-new CBE program on an outdated competency list from a colleague in another state. Perhaps Mr. Wisner can benefit from the upcoming workshops and training sessions after all.

Level of Performance: Your written critiques of the teachers' performance should have covered the same **major** points as the model critiques. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Orienting the School and Community to CBE, pp. 35–43, or check with your resource person if necessary.

Learning Experience IV

OVERVIEW

In a simulated situation, orient members of the school or community to CBE.

You will be developing a plan for an informal or formal presentation designed to orient selected members of the school and community to CBE.

You will be giving the presentation to a group of peers or to your resource person.

You may wish to record your presentation on audiotape or videotape for self-evaluation purposes.

Your competency in preparing and giving a presentation designed to orient an individual or group to CBE will be evaluated by your peers or by your resource person, using copies of the Presentation Checklist, pp. 53–63.

If you tape your presentation, you may wish to evaluate your own performance, using a copy of the Presentation Checklist, pp. 53–63.

Develop a complete plan for a presentation designed to orient selected members of the school and community to CBE. Your presentation could be designed to orient members of any one of the following groups: instructors, administrators, parents, employers, union representatives, members of civic and service organizations, prospective students, or other similar groups.

In planning your presentation, consider the characteristics of your hypothetical audience and situation, and structure your presentation accordingly. For example, you might wish to assume that you will be addressing a group of somewhat hostile teachers who are attending a faculty meeting to discuss the need for curriculum revision.

Include in your plans an outline and a list of any supporting materials you wish to use.

In a simulated situation, present your orientation to a group of peers. These peers will serve two functions: (1) they will role-play the audience to whom you are giving your presentation, and (2) they will evaluate your performance. If peers are not available to you, you may present your orientation to your resource person. **NOTE:** Before giving your presentation, be sure your peers or your resource person are familiar with the roles they are to play (e.g., administrator unfamiliar with CBE, faculty hostile to the concept).

If you wish to self-evaluate, you may record your performance on videotape or audiotape so you may review your own presentation at a later time.

Multiple copies of the Presentation Checklist are provided in this learning experience, pp. 53–63. Give a copy to each peer or to your resource person before presenting your orientation in order to ensure that each knows what to look for in your presentation. However, indidate that, during the orientation, all attention is to be directed toward you and that the checklists are to be completed **after** the presentation is finished.

If you taped your presentation, you may wish to self-evaluate using a copy of the Presentation Checklist, pp. 53–63.

PRESENTATION CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

The teacher's presentation:	N/A	No	Partial	Full
1. was geared to the particular audience involved	☐	☐	☐	☐
2. provided information appropriate to the needs of the target audience	☐	☐	☐	☐
3. provided information that was accurate and sufficiently detailed	☐	☐	☐	☐
4. had a clearly defined purpose	☐	☐	☐	☐
5. gave evidence that the teacher grasps the basic principles and practices of CBE	☐	☐	☐	☐
6. was well organized	☐	☐	☐	☐
7. provided a balanced view, presenting both the benefits of CBE as well as the potential difficulties faced in implementing the CBE approach	☐	☐	☐	☐

Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

PRESENTATION CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

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4. had a clearly defined purpose	☐	☐	☐	☐
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6. was well organized	☐	☐	☐	☐
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Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
The teacher's presentation:				
1. was geared to the particular audience involved	☐	☐	☐	☒
2. provided information appropriate to the needs of the target audience	☐	☐	☐	☒
3. provided information that was accurate and sufficiently detailed	☐	☐	☐	☒
4. had a clearly defined purpose	☐	☐	☐	☒
5. gave evidence that the teacher grasps the basic principles and practices of CBE	☐	☐	☐	☒
6. was well organized	☐	☐	☐	☒
7. provided a balanced view, presenting both the benefits of CBE as well as the potential difficulties faced in implementing the CBE approach	☐	☐	☐	☒

Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

The teacher's presentation:	N/A	No	Partial	Full
1. was geared to the particular audience involved	☐	☐	☐	☐
2. provided information appropriate to the needs of the target audience	☐	☐	☐	☐
3. provided information that was accurate and sufficiently detailed	☐	☐	☐	☐
4. had a clearly defined purpose	☐	☐	☐	☐
5. gave evidence that the teacher grasps the basic principles and practices of CBE	☐	☐	☐	☐
6. was well organized	☐	☐	☐	☐
7. provided a balanced view, presenting both the benefits of CBE as well as the potential difficulties faced in implementing the CBE approach	☐	☐	☐	☐

Level of Performance: All items must receive FULL or N/A responses. If any item receives a NO or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

Learning Experience V

FINAL EXPERIENCE

Terminal Objective

In an actual teaching situation,* prepare yourself for CBE.

Activity 1

As part of your duties as a teacher, prepare yourself for CBE. This will include—

- assessing your readiness to implement CBE
- orienting others to CBE

NOTE: As you complete each of the above activities, document your actions (in writing, on tape, through a log) for assessment purposes.

Feedback 2

Arrange to have your resource person review any documentation you have compiled. If possible, arrange in advance to have your resource person observe at least one instance in which you are orienting others to CBE.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 67–68.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in preparing yourself for CBE.

*For a definition of "actual teaching situation," see the inside back cover.

TEACHER PERFORMANCE ASSESSMENT FORM

Prepare Yourself for CBE (K-1)

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In assessing his/her readiness for CBE, the teacher:						
1. reviewed his/her knowledge of the essential elements and facilitating characteristics of CBE	☐	☐	☐	☐	☐	☐
2. reviewed his/her attitudes toward the implementation of CBE	☐	☐	☐	☐	☐	☐
3. determined his/her need for greater knowledge, skills, and/or experience relating to CBE	☐	☐	☐	☐	☐	☐
4. identified specific means to use to gain the needed knowledge, skills, and/or experience	☐	☐	☐	☐	☐	☐
5. began to carry out his/her plan to gain needed knowledge, skills, and/or experience relating to CBE	☐	☐	☐	☐	☐	☐
In orienting others to CBE, the teacher:						
6. accurately identified those groups in the school or community that needed to be oriented to CBE	☐	☐	☐	☐	☐	☐
7. identified the types of information most appropriate to the needs of each group to be oriented	☐	☐	☐	☐	☐	☐
8. identified the most effective method or approach to use in orienting each group	☐	☐	☐	☐	☐	☐
9. outlined the specific content or activities to be used to reach each group	☐	☐	☐	☐	☐	☐
10. included in each outline:						
a. information appropriate to the needs of each group	☐	☐	☐	☐	☐	☐
b. accurate, thorough, up-to-date information	☐	☐	☐	☐	☐	☐
c. a clearly defined purpose	☐	☐	☐	☐	☐	☐
d. a well-organized sequence of information and/or activities	☐	☐	☐	☐	☐	☐

	N/A	None	Poor	Fair	Good	Excellent
11. displayed a grasp of the basic concepts of CBE	☐	☐	☐	☐	☐	☐
12. delivered the outlined presentations in an organized manner	☐	☐	☐	☐	☐	☐
13. provided listeners with the opportunity to ask questions ...	☐	☐	☐	☐	☐	☐
14. provided a balanced view of CBE, presenting both the benefits and the potential difficulties in implementing this approach	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

ABOUT USING THE NATIONAL CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or occupational trainer.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience **and** have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecondary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would be functioning in an actual teaching situation. If you do **not** have access to an actual teaching situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may **substitute** for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity.

Optional Activity or Feedback: An item that is not required but that is designed to **supplement** and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment

N/A: The criterion was not met because it was **not applicable** to the situation.

None: No attempt was made to meet the criterion, although it was relevant.

Poor: The teacher is unable to perform this skill or has only **very limited ability** to perform it.

Fair: The teacher is unable to perform this skill in an acceptable manner but has **some ability** to perform it.

Good: The teacher is able to perform this skill in an **effective** manner.

Excellent: The teacher is able to perform this skill in a **very effective** manner.

Titles of the National Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation

A-1 Prepare for a Community Survey
A-2 Conduct a Community Survey
A-3 Report the Findings of a Community Survey
A-4 Organize an Occupational Advisory Committee
A-5 Maintain an Occupational Advisory Committee
A-6 Develop Program Goals and Objectives
A-7 Conduct an Occupational Analysis
A-8 Develop a Course of Study
A-9 Develop Long-Range Program Plans
A-10 Conduct a Student Follow-Up Study
A-11 Evaluate Your Vocational Program

Category B: Instructional Planning

B-1 Determine Needs and Interests of Students
B-2 Develop Student Performance Objectives
B-3 Develop a Unit of Instruction
B-4 Develop a Lesson Plan
B-5 Select Student Instructional Materials
B-6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

C-1 Direct Field Trips
C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
C-4 Direct Students in Instructing Other Students
C-5 Employ Simulation Techniques
C-6 Guide Student Study
C-7 Direct Student Laboratory Experience
C-8 Direct Students in Applying Problem-Solving Techniques
C-9 Employ the Project Method
C-10 Introduce a Lesson
C-11 Summarize a Lesson
C-12 Employ Oral Questioning Techniques
C-13 Employ Reinforcement Techniques
C-14 Provide Instruction for Slower and More Capable Learners
C-15 Present an Illustrated Talk
C-16 Demonstrate a Manipulative Skill
C-17 Demonstrate a Concept or Principle
C-18 Individualize Instruction
C-19 Employ the Team Teaching Approach
C-20 Use Subject Matter Experts to Present Information
C-21 Prepare Bulletin Boards and Exhibits
C-22 Present Information with Models, Real Objects, and Flannel Boards
C-23 Present Information with Overhead and Opaque Materials
C-24 Present Information with Filmstrips and Slides
C-25 Present Information with Films
C-26 Present Information with Audio Recordings
C-27 Present Information with Televised and Videotaped Materials
C-28 Employ Programmed Instruction
C-29 Present Information with the Chalkboard and Flip Chart
C-30 Provide for Students' Learning Styles

Category D: Instructional Evaluation

D-1 Establish Student Performance Criteria
D-2 Assess Student Performance: Knowledge
D-3 Assess Student Performance: Attitudes
D-4 Assess Student Performance: Skills
D-5 Determine Student Grades
D-6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

E-1 Project Instructional Resource Needs
E-2 Manage Your Budgeting and Reporting Responsibilities
E-3 Arrange for Improvement of Your Vocational Facilities
E-4 Maintain a Filing System
E-5 Provide for Student Safety
E-6 Provide for the First Aid Needs of Students
E-7 Assist Students in Developing Self-Discipline
E-8 Organize the Vocational Laboratory
E-9 Manage the Vocational Laboratory
E-10 Combat Problems of Student Chemical Use

Category F: Guidance

F-1 Gather Student Data Using Formal Data-Collection Techniques
F-2 Gather Student Data Through Personal Contacts
F-3 Use Conferences to Help Meet Student Needs
F-4 Provide Information on Educational and Career Opportunities
F-5 Assist Students in Applying for Employment or Further Education

Category G: School-Community Relations

G-1 Develop a School-Community Relations Plan for Your Vocational Program
G-2 Give Presentations to Promote Your Vocational Program
G-3 Develop Brochures to Promote Your Vocational Program
G-4 Prepare Displays to Promote Your Vocational Program
G-5 Prepare News Releases and Articles Concerning Your Vocational Program
G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
G-7 Conduct an Open House
G-8 Work with Members of the Community
G-9 Work with State and Local Educators
G-10 Obtain Feedback about Your Vocational Program

Category H: Vocational Student Organization

H-1 Develop a Personal Philosophy Concerning Vocational Student Organizations
H-2 Establish a Vocational Student Organization
H-3 Prepare Vocational Student Organization Members for Leadership Roles
H-4 Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
H-5 Supervise Activities of the Vocational Student Organization
H-6 Guide Participation in Vocational Student Organization Contests

Category I: Professional Role and Development

I-1 Keep Up to Date Professionally
I-2 Serve Your Teaching Profession
I-3 Develop an Active Personal Philosophy of Education
I-4 Serve the School and Community
I-5 Obtain a Suitable Teaching Position
I-6 Provide Laboratory Experiences for Prospective Teachers
I-7 Plan the Student Teaching Experience
I-8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

J-1 Establish Guidelines for Your Cooperative Vocational Program
J-2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
J-3 Enroll Students in Your Co-Op Program
J-4 Secure Training Stations for Your Co-Op Program
J-5 Place Co-Op Students on the Job
J-6 Develop the Training Ability of On-the-Job Instructors
J-7 Coordinate On-the-Job Instruction
J-8 Evaluate Co-Op Students' On-the-Job Performance
J-9 Prepare for Students' Related Instruction
J-10 Supervise an Employer-Employee Appreciation Event

Category K: Implementing Competency-Based Education (CBE)

K-1 Prepare Yourself for CBE
K-2 Organize the Content for a CBE Program
K-3 Organize Your Class and Lab to Install CBE
K-4 Provide Instructional Materials for CBE
K-5 Manage the Daily Routines of Your CBE Program
K-6 Guide Your Students Through the CBE Program

Category L: Serving Students with Special/Exceptional Needs

L-1 Prepare Yourself to Serve Exceptional Students
L-2 Identify and Diagnose Exceptional Students
L-3 Plan Instruction for Exceptional Students
L-4 Provide Appropriate Instructional Materials for Exceptional Students
L-5 Modify the Learning Environment for Exceptional Students
L-6 Promote Peer Acceptance of Exceptional Students
L-7 Use Instructional Techniques to Meet the Needs of Exceptional Students
L-8 Improve Your Communication Skills
L-9 Assess the Progress of Exceptional Students
L-10 Counsel Exceptional Students with Personal-Social Problems
L-11 Assist Exceptional Students in Developing Career Planning Skills
L-12 Prepare Exceptional Students for Employability
L-13 Promote Your Vocational Program with Exceptional Students

Category M: Assisting Students in Improving Their Basic Skills

M-1 Assist Students in Achieving Basic Reading Skills
M-2 Assist Students in Developing Technical Reading Skills
M-3 Assist Students in Improving Their Writing Skills
M-4 Assist Students in Improving Their Oral Communication Skills
M-5 Assist Students in Improving Their Math Skills
M-6 Assist Students in Improving Their Survival Skills

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education
Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586

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